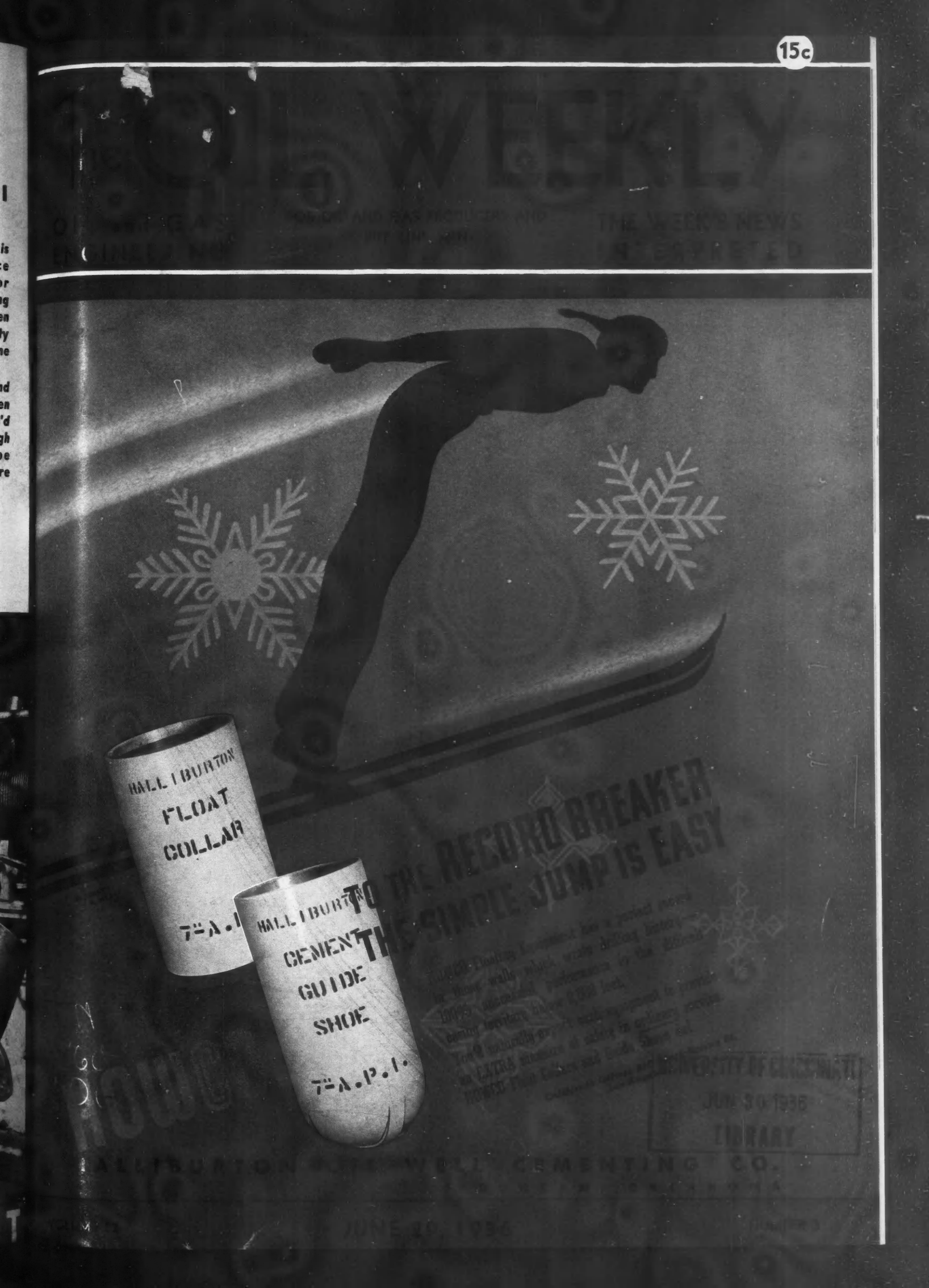
OIL WEEKLY



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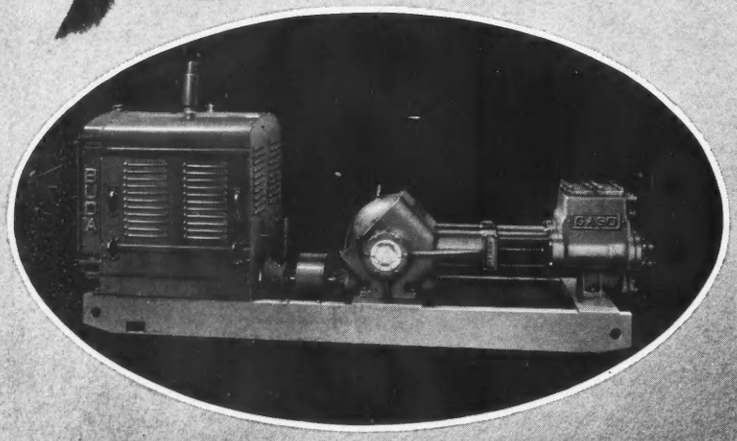

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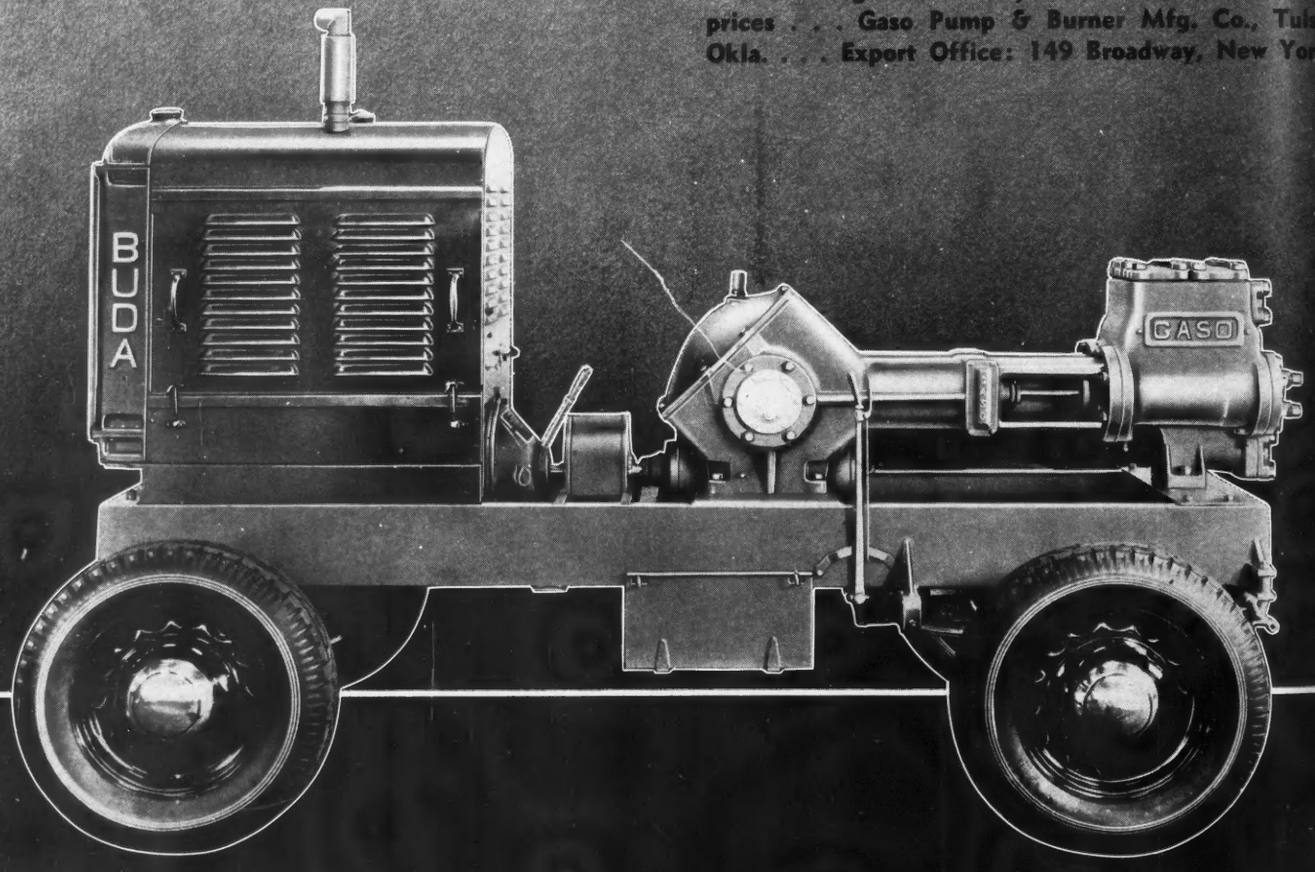

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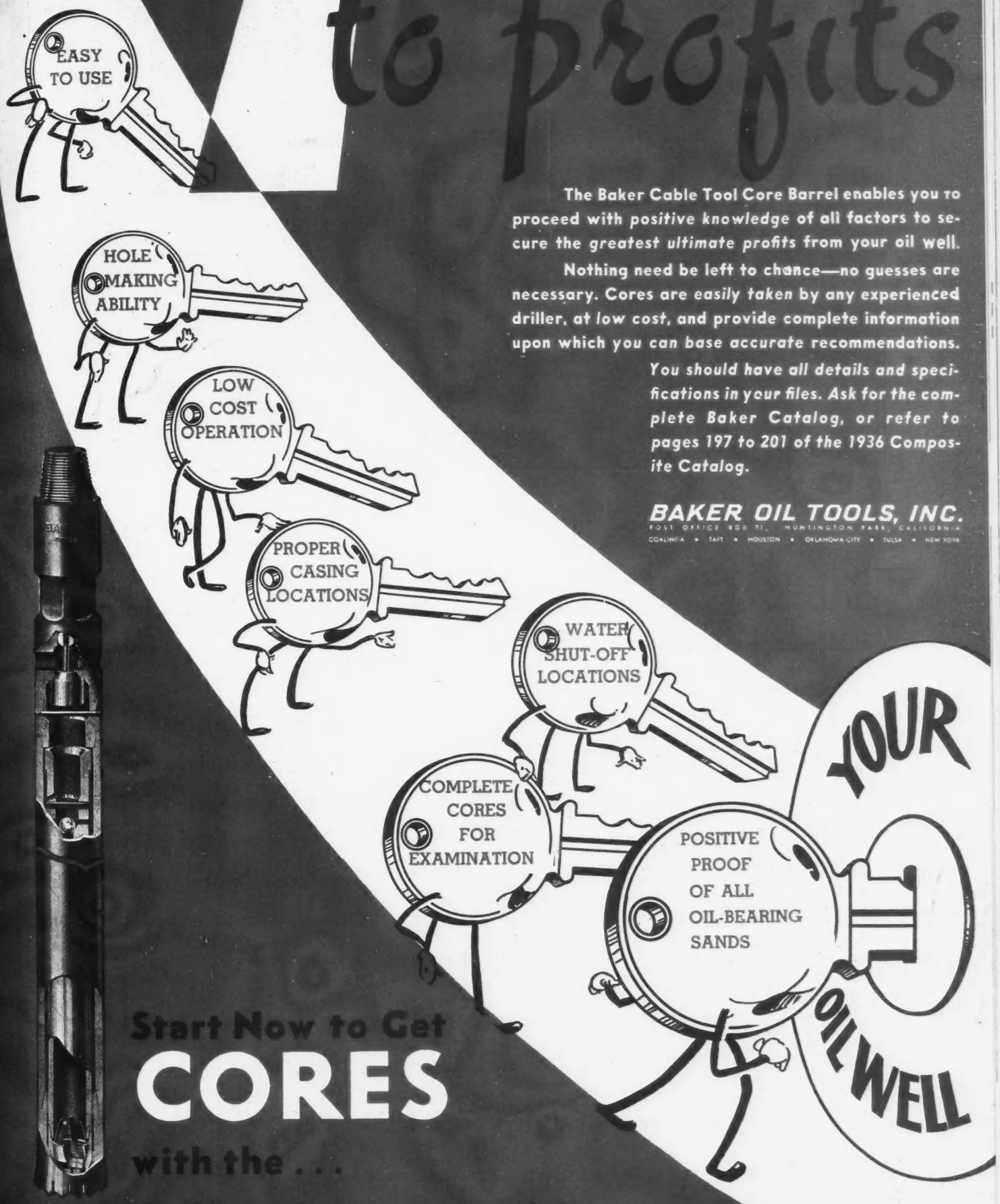

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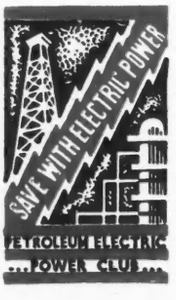

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THE OIL WEEKLY

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THE STORY BEHIND

Order No. 12076

It was late one evening when one of our Southwestern Branches received a "hurry up" call for a derrick and substructure.

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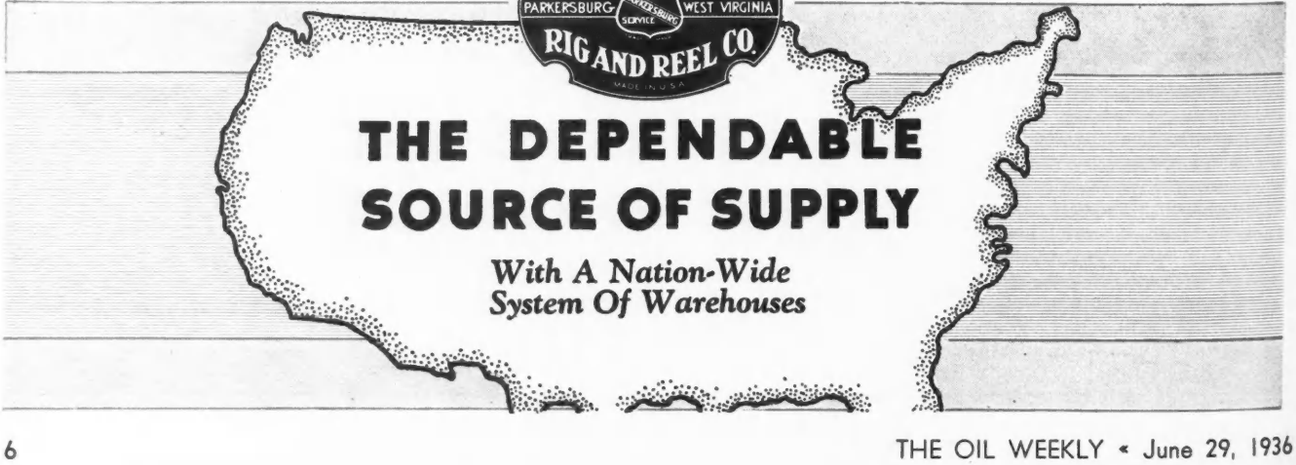

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ENGINEERING NEWS STATISTICS

WARREN L. BAKER, Editor.

. . . this Week

THE outlook of the petroleum industry continues to brighten. Of particular importance is the spirit of cooperation prevailing within the industry itself and among the conservation officials of the leading producing states. Producers and state authorities showed their cooperative spirit the past week, by joining hands in reducing production allowables in the leading states during July. If this spirit of cooperation can be maintained, production can be kept in line with consumption, and the industry will prosper accordingly. **Page 11.**

THE United States Bureau of Mines has estimated that an increase of 78,900 barrels in the daily average production of the nation will be required during July. Seasonal and normal gains in gasoline consumption are expected to exceed the recommended daily total of 2,917,200 barrels, resulting in greater withdrawals from both gasoline and crude stocks during the 30-day period. The Bureau report states that approximately 112,500 barrels daily should be withdrawn from crude storage if the above figure is produced daily. **Page 8.**

THE Oklahoma Corporation Commission has set the state allowable for July at 524,875 barrels daily, which is the same figure as during June. This volume is approximately 45,000 barrels below the Bureau of Mines recommendations for the state. However, it is anticipated that actual July production will be less than in June, as completions in the North Extension at Oklahoma City caused some overproduction last month. During July there will be considerably less activity in this district. As a result of the two above factors, the Mid-Continent market prospects braced materially last week. **Page 8.**

THE new tax law signed by President Roosevelt on June 23 provides for a material cut in the taxes on profits derived from the sale of oil or gas properties. A provision of the law is that in the case of sales where the profit has been derived by prospecting or exploration or discovery work the tax shall not exceed 30 percent of the selling price. Formerly such taxes ran as high as 75 percent on amounts over $5,000,000. **Page 9.**

LOCATION of water flow in drilled holes is an important problem. Recently some interesting studies have been made, whereby the location of water sources is determined by temperature measurements. While the thermometric technique of solving water flow problems is not sufficiently developed to assure accurate results under all conditions, studies to date have obtained data that is highly encouraging. **Page 19.**

THE average gas/oil ratio in the Peasel pool, Sumner County, Kansas, has been reduced sharply by installation of bottom-hole chokes in most of the flowing wells. Operators in the field recently agreed to put in the chokes, following tests that indicated the advantage of restricting the high gas/oil ratio. This is the first unit operation of this type. Prior to installing chokes, wells were producing with a gas/oil ratio of 1/10,000, but this has been reduced to 1/3500. **Page 36.**

PHOTO-MICROGRAPHY has three outstanding applications in the oil business, namely that of metallurgy, petrology and invertebrate paleontology. Workers in these sciences have found it essential to employ some means of recording the images seen through microscopes, and photography offers speed, truthful rendition, and accurate picturing of complicated and fine details. A number of the larger companies have their own photo-micrographic laboratories, and no doubt the future will see additional concerns so equipped. **Page 41.**

A WYOMING wild gas fire has been extinguished by the use of some practices not heretofore employed for such work. The flame was shot out by introducing torpedoes through a water-cooled barrel made of 10-inch casing, and which was raised over the well site. Following this operation a 300-foot seven-ton escape manifold, also made of 10-inch casing, was used to carry the escaping gas away from the well location so the crew might work with comparatively safety. **Page 30.**

THE first pressure drilling operation in Michigan has been used on a portable standard tool machine employed in deepening an old gas well. The success of the work is likely to result in additional usage of the system. The well flow was enlarged from 12,000,000 to 31,000,000 cubic feet. It is believed that the characteristics of the producing formation are such as to have clogged or bridged many holes drilled previously. **Page 44.**

The Oil Man's Calendar

JULY 31	Interstate Oil Compact Commission, Dallas, Texas.
AUG. 11–16	Michigan Oil and Gas Exposition, Mt. Pleasant, Michigan.
SEPT. 7–12	World Power (Fuel) Conference, Washington, D. C.
16–18	National Petroleum Association, Atlantic City, New Jersey. American Petroleum Institute, Division of Production, Mid-Continent District, Probably at Oklahoma City.
OCT. 5– 9	National Safety Congress Petroleum Section, Atlantic City, New Jersey. American Institute of Mining and Metallurgical Engineers Cleveland, Ohio.
NOV. 9–12	American Petroleum Institute, 17th Annual Meeting, Chicago, Illinois.
NOV. 30–DEC. 1	Independent Petroleum Association of America, Biltmore Hotel, Oklahoma City, Oklahoma.

Recommend Increase

BUREAU ESTIMATE FOR JULY 2,917,200 BARRELS DAILY

WASHINGTON, D. C.

REQUIRED daily average crude oil production for July will be 2,917,200 barrels, an increase of 78,900 barrels above the recommendation for June and 257,200 barrels above the recommendation for July, 1935, it was announced June 23 by the Bureau of Mines.

The proposed increase, it was explained, reflects the seasonal and normal gains in gasoline consumption, to be partially offset by increases in recommended withdrawals from gasoline and crude stocks.

"During the last four weeks for which complete data are available (up to June 6)," the bureau commented, "the production of crude oil is estimated at 3,040,000 barrels daily. Crude oil stocks have decreased at about 16,000 barrels daily, indicating a demand of 3,056,000 barrels. The bureau's estimate of demand for that period was 2,896,000 barrels, indicating a deficiency of 160,000 barrels in the recommended supply. However, most of this represents crude runs to stills to make gasoline, which normally would have been withdrawn from storage."

The bureau estimates the domestic motor fuel demand for the coming month as 46,480,000 barrels, a daily average of 1,499,000 barrels, and points out that "although this is 12 percent above the indicated demand for July, 1935, it is only 9 percent higher than the 'normal' or estimated demand for that month." Apparently, the demand for motor fuel continues to exceed expectations.

Exports of motor fuel are estimated at 2,400,000 barrels, an increase of 350,000 barrels over the estimate for June but 622,000 barrels less than the actual shipments in July, 1935.

Seek Stock Reduction

Stocks of finished and unfinished gasoline on April 30 were 73,509,000 barrels, and the bureau points out that according to the American Petroleum Institute they declined approximately 2,100,000 barrels in May and an additional 1,300,000 barrels up to June 13, indicating that about 68,400,000 barrels will remain on hand June 30. "This is nearly 9,000,000 barrels more than the quantity on hand July 30, 1935," it was stated. "In view of the fact that the heavy consumption of gasoline in July will offer an excellent opportunity to reduce stocks, the recommended withdrawal for July has been raised to 4,990,000 barrels, or about 1,000,000 barrels more than recommended for July, 1935, and June, 1936."

Motor benzol production and "direct" sales and losses of natural gasoline for July are estimated at the June level of 900,000 barrels.

On the basis of these factors, the bureau finds that 42,990,000 barrels of finished and unfinished gasoline will be required in July, this production to be allocated among the various districts on the following suggested basis: East Coast, 6,550,000 barrels; Appalachian, 1,700,000 barrels; Indiana-Illinois, 7,260,000 barrels; Oklahoma, 3,030,000 barrels; Kansas-Missouri, 2,770,000 barrels; Texas inland, 3,250,000 barrels; Texas Gulf, 8,770,000 barrels; Louisiana Gulf, 1,610,000 barrels; Arkansas-Louisiana inland, 1,150,000 barrels; Rocky Mountain, 1,000,000 barrels; California, 5,900,000 barrels.

Estimating the ratio of natural gasoline used by refiners to the total production at 5.7 percent, the bureau calculated 2,450,000 barrels of natural gasoline will be utilized at refineries during July, leaving 40,540,000 barrels of gasoline to be made from crude oil. The estimated yield of cracked and straight-run gasoline is increased about 0.23 percent over June, to 44.835 percent, giving 90,420,000 barrels of crude oil required for runs to stills.

BUREAU'S RECOMMENDED CRUDE PRODUCTION FOR JULY, 1936

State—	Barrels Daily
Texas	1,146,500
Oklahoma	569,800
California	550,800
Louisiana	186,800
Kansas	164,200
New Mexico	69,400
Pennsylvania	44,500
Wyoming	38,800
Michigan	33,800
Arkansas	31,300
Kentucky	14,900
Montana	13,400
New York	12,500
Illinois	12,400
Ohio	11,100
West Virginia	10,300
Colorado	4,700
Indiana	2,000
	2,917,200

Foreign Movement

Runs of foreign crude for July are estimated at 3,000,000 barrels, an increase of 200,000 barrels over the current month, while crude exports are estimated at 4,400,000 barrels, an increase of 400,000 barrels above the June figure, although considerably below actual exports last July, when foreign shipments were at their peak. Losses and consumption of crude as fuel are estimated at 2,100,000 barrels.

Provision has been made for the withdrawal from crude stocks of 112,500 barrels daily, compared with the suggested withdrawal of 75,000 barrels for June. As in the case of gasoline stocks, the bureau pointed out, the heavy July consumption will afford an opportunity to reduce crude stocks, "although," it is commented, "sound economic considerations suggest that this might better be accomplished by reducing production rather than by increasing refinery runs or reducing gasoline yields."

On the basis of all the factors, the bureau announced, a total required production of 90,433,000 barrels next month will provide a daily average of 2,917,200 barrels, the recommended allocation among the producing states being shown in the accompanying tabulation.

DRIVE SAFELY

Industry record is below that of other businesses

TITUSVILLE, PA.

DRIVERS of motor vehicles operating in the service of the petroleum industry were involved, on the average, only in one accident in each 60,170 miles traveled during 1935, H. N. Blakeslee, director of the American Petroleum Institute's Department of Accident Prevention, told the annual meeting of the National Petroleum Association's Fire and Safety Marshals here June 25.

Blakeslee, who said the industry began in 1931 to train its motor vehicle operators to drive safely, reported that his department's summary of 1935 accidents shows that the industry's motor vehicles figured in only 1.66 accidents per 100,000 miles of operation, as compared with the all-industry record of 2.33 accidents per 100,000 miles, or one accident in each 42,880 miles traveled.

A Matter of Skill

The industry's experience in preventing accidents, Blakeslee said, has convinced oil company safety engineers that safe operation is a matter of skill rather than legislation, and the industry plans to continue with driver-training and with dissemination of accurate information on correct-driving technique.

"We hope," he explained, "that encouragement of our own motor vehicle operators toward their individual responsibility in the matter of highway safety will result in making the petroleum industry a shining example for the public to follow. It is confidently believed that our constructive efforts and good example will have the effect of forestalling much confusing, cumbersome, and restrictive propaganda and legislation."

Blakeslee characterized as "passing the buck and loading us with the other fellow's problems," current attempts to make the sale of gasoline to intoxicated driver's a misdemeanor. He explained the difficulty of ascertaining when a driver is intoxicated, declaring it is too much to expect that filling station salesmen should be able "to determine something which law-enforcement agents cannot." Station salemen will continue to deal with customers in a judicious manner, he said, and the problem of handling the intoxicated driver will not be overlooked, but he questioned the "logic of making legal the sale of liquor and illegal the sale of gasoline."

Cut Allowable

OKLAHOMA JULY OUTPUT IS AGAIN HELD IN CHECK

TULSA.

MID-CONTINENT market prospects were braced last week by the decision of the Oklahoma Corporation Commission to specify 524,875 barrels daily as the July output and by the fact that drilling in the North Extension of the Oklahoma City pool is passed its peak.

The output fixed by the order written June 25 is identical with that written for June. The recommendation of the United States Bureau of Mines for Oklahoma in July was 569,800 barrels daily.

Completions at Oklahoma City in June were responsible for the output of the state holding above the order of the corporation commission. The field now has more producing wells than drilling operations. The campaign should be at an end by the middle of July and thus leave better opportunity for keeping output in line with orders.

The Bureau of Mines recommendation for June was 552,500 barrels daily. This was reduced by five percent the latter part of May. Production for Oklahoma fields in June, however, will be well above the 524,875 barrels specified in the order. Figures for the final week should see the average for the month below the recommendation of the Bureau of Mines.

The move to hold output below federal recommendations had its start with the state allocations committee, which met in Tulsa June 22. It recommended a figure identical with June. Previously there had been rumors to the effect that the Oklahoma conservation group would not be asked to write another low output order because the Texas Railroad Commission had not recommended a five percent reduction below federal recommendations in drafting its June allowable schedule. However, the Texas July allowable represented a considerable reduction.

Most of the 75 wells now producing in the Oklahoma City north extension came in during June. Potentials were taken promptly and this output plus that added by the prorated flow of these wells was an influence in holding state output around 540,000 barrels daily for the month.

Complain of Stocks

An indication that recommendations of the Bureau of Mines are too optimistic came when purchasers of Oklahoma crude oil complained of running some oil to storage. This condition existed the first half of June when output of the state was within the June federal recommendation of 552,500 barrels daily.

The week had a better movement of gasoline but prices held even with those prevailing the week previous. Increased demand at service stations was felt in revised shipping instructions from jobbers. Refiners went into inventories to fill orders.

TRUCK RATES

Texas Commission takes case under advisement

AUSTIN.

MEMBERS of the Oil Field Haulers' Association appeared before the Texas Railroad Commission June 25, asking that the commission assume jurisdiction and establish uniform rates for trucks. They estimated that the average cost of operating oil field trucks was 12.5 cents per mile, and asked that a rate based on this cost be fixed.

Representatives of large oil companies, oil well supply companies, railroads and truck lines opposed the application. They declared that much of this service was off highways, where commission officials had no jurisdiction. Other truck lines protested that the rates proposed were too low. The case was taken under advisement by the commission.

CUT TAX ON SALES

Expect reduction to be boost to lease trades

WASHINGTON, D. C.

A MATERIAL cut in taxes on the profits derived from the sale of oil or gas properties is provided for in the new tax law, signed by President Roosevelt June 23.

Under an amendment to the bill offered by the Senate finance committee and accepted by both Senate and House of Representatives, a new provision was written into the measure specifying that "in case of a bona fide sale of any oil or gas property, or any interest therein, where the principal value of the property has been demonstrated by prospecting or exploration or discovery work done by the taxpayer, the portion of the tax imposed by Section 12 (surtaxes on individuals) attributable to such sale shall not exceed 30 per centum of the selling price of such property or interest."

Maximum 30 Percent

Under the former law, the surtax rates on such sales were the same as those for income generally, ranging from 4 percent on the first $4000 to 75 percent on amounts over $5,000,000. The 30 percent maximum is expected to encourage sales which heretofore had been held up because of the heavy tax responsibilities and is estimated to produce an annual revenue yield of $10,000,000.

It was expalined that the provision is designed to ameliorate the hardship placed upon the owners of oil and gas leases whose exploration and prospecting work have demonstrated the value of the properties.

Since the repeal of the tax law provisions giving a taxpayer the right to bring forward a prior year loss and use it as an offset against current year's income and the repeal of the provision carried in all laws up to the Revenue Act of 1934. Limiting the surtax on oil transactions to 16 percent of the selling price, many oil property owners have been unable to sell leases because of the high surtax involved, it was said.

Many oil operators have suffered heavy losses during the past five years, which they will be able, more or less, to recoup through the sale of properties which now have become highly valuable. It is expected, accordingly, that the provision will not only afford relief to the operators but provide a considerable revenue to the treasury.

BAHREIN OIL

Texas to market it for Standard of California

LOS ANGELES.

AN agreement has been reached between Standard Oil Company of California and The Texas Corporation, whereby production and refining products derived from territories east of the Suez by the former will be marketed by subsidiaries of The Texas Corporation. A new company, to be known as The California-Texas Oil Company, has been organized to carry out contract. Standard Oil Company of California has developed production on Bahrien Island, while The Texas Corporation has far-flung marketing facilities in foreign districts.

New Company Formed

K. R. Kingsbury, president of Standard Oil Company of California and Captain T. Rieber, chairman of the board of The Texas Corporation, issued the following statement:

"After several months of negotiations an agreement has been reached between Standard Oil Company of California and The Texas Corporation, through which the production of crude oil of Standard Oil Company of California, east of Suez and the petroleum products from the refinery, which is now under construction at Bahrein, will be marketed through the foreign distributing facilities of subsidiaries of The Texas Corporation.

"The capacity of the refinery at Bahrein, which is nearing completion, is to be expanded while additional marketing facilities will be erected where necessary.

"To accomplish the purpose, a new corporation, The California-Texas Oil Company, Limited, has been organized. Each of the parent companies having equal representation on the board of directors. Standard Oil Company will be represented by J. A. Moffett, who will become chairman of the board; R. H. Morrison as vice president; and Max Thornberg as vice president. The Texas Corporation will be represented by H. M. Herron, who will become president; J. V. Murray as director and William Kunstadter as secretary and treasurer."

East Texas Cut

REDUCED ALLOWABLE SETS OUTPUT AT 427,371

KILGORE.

REDUCED allowable assigned the East Texas field effective 7 a. m. June 21 lowered the daily yield to 427,371 barrels from the 20,784 producers listed by the Texas Railroad Commission's records. The cut amounted to 12,854 barrels in the daily output, and reduced the average yield per well to 20.56 barrels daily, according to a compilation by H. L. Williford, engineer in charge of proration statistics. On the above date 15,757 wells, or 75.8 percent of the total, were classed as marginal producers with a flat allowable of 20 barrels daily, the minimum prescribed by the state's marginal well statutes.

This production curtailment originally was set for June 20 as the East Texas field's contribution towards lowering the state's output approximately 56,713 barrels daily, but the effective date was advanced one day on the largest field to simplify the large volume of bookkeeping involved when a mid-month cut takes place.

The proration factor used by the commission in apportioning production among non-marginal wells in East Texas was cut from 2.6 percent to 2.32 percent to attain the lower allowable. The former factor had been in effect since May 20. Under the new schedule wells must be rated at approximately 870 barrels per hour on potential flow to produce more than the 20-barrel marginal allowable, and a fraction less than 25 percent of the total in the field can classify as non-marginal wells. Rated potential flow of key wells ranges up to 1119 barrels per hour, a mark attained on re-test last April 12 by Humble Oil & Refining Company's H. Sexton 11-C, M. McCabe Survey, Rusk County.

More Marginal Wells

Use of the smaller proration factor on June 21 converted 2636 wells from non-marginal to the marginal well group. On the above date the official proration schedule gives the 20,784 wells a combined rated potential of 12,754,824 barrels per hour, or 306,115,776 barrels daily.

Periodical slashes given the non-marginal wells in the East Texas field heretofore have not greatly retarded drilling. Now that the field is virtually on a marginal well basis a change of attitude may be displayed by operators that persist in crowding in additional wells on properties that have already been developed below the average for the field. Drilling will be continued near the present rate for an indefinite period if an increase in crude prices results from production curtailment, as operators are having no difficulties in financing new development work on desirably located leases at comparatively low interest rates.

Week Adds 52 New Wells

Field work the past week accounted for 54 completions, including a dry hole and a junked test. This compares with the same number of producers and two failures the previous week. A large percentage of the current completions are incapable of flowing their small proration quota, and during the past week 16 of the total required mechanical aid in producing the oil.

Heavy volume of drilling permits granted by the commission within the past several weeks to East Texas operators indicates that a more ambitious drilling program is to be reckoned with. An equally large volume of permit applications for exceptions to well spacing regulations have been recorded within the past 10 days. A current survey of field work reveals that about 95 rigs are in operation, and that idle tests, locations, derricks and rigs combined with the above amount to 245 operations.

Disappointments resulted from a number of operations along the southwest border of production in the Joiner area. Texas Canadian Oil Corporation's Geo. Brown-Marathon 1, NEc of 73.33-acre lease, J. B. Camp Survey, failed to show oil or gas with the salt water found in Woodbine sand at 3657-3670 feet, and will be abandoned. This concern's second test on the Anna Kelly 107.76-acre "B" lease, De Los Coy Survey, Cherokee County, flowed salt water in sand at 3715-3780 feet, and was abandoned. Merry Bros. & Perini, Incorporated's Mrs. Anna Kelly 5 is reported to have taken in too much sand section, resulting in a heavy yield of water, and will plug back. DeArman and Bauman's John Rettig 5, J. H. Sparks Survey, continued to yield all water after being on pump several days. Sand pay was logged at 3631-3635 feet, with an elevation of 311 feet. Peyton et al's J. D. Nichols 3 is credited with having failed to produce when carried to the 3750-foot level, and will be abandoned.

COMPANIES MERGER

Salt Dome, Coastland and Texla are combined

HOUSTON.

THE Salt Dome Oil Corporation, Texla Oil Corporation and Coastland Oil Corporation were merged into one corporation it was announced last week by Karl F. Hasselmann, president of Salt Dome Oil Corporation with subject to the approval of stockholders at meetings to be held July 24, 1936, at Wilmington, Delaware.

The merger involved over a half million dollars in cash, 24 producing wells and around 50,000 lease acres. Karl F. Hasselman also stated that under the agreement of the merger Salt Dome Oil Corporation will continue, the other two companies will be dissolved into the corporation. Those stockholders holding shares in the other two companies will be issued shares of Salt Dome Oil Corporation.

Upon completion of the merger there will be 559,569 shares outstanding of the 1,000,000 shares authorized.

TAXES IN DECLINE

May gasoline collections register a drop

WASHINGTON, D. C.

RECEIPTS from the federal gasoline tax in May showed a marked decline from both the preceeding month and the corresponding month last year, it was reported June 19 by the Internal Revenue Bureau.

Collections during the month, the Bureau announced, totaled $11,980,060 against $12,349,446 in April and $13,360,934 in May, 1935.

Lubricating oil tax collections showed an increase over April, from $2,153,170 to $2,378,403, but were under the May, 1935, total of $2,775,739.

Collections from the transportation of oil by pipe line dropped from $826,939 in April to $814,670 in May but were ahead of last year's $713,347. But collections from the processing tax were only $64,109 against $70,767 in April and $162,549 in May, 1935, it was stated.

STRIKE MAY SPREAD

West Texas rigs going idle as wells complete

MIDLAND, TEXAS.

ERECTION of derricks in the Permian Basin section of West Texas has been discontinued in all the active fields pending settlement of a rig builders' strike that originated June 10 in southeastern Lea County, New Mexico, areas and gradually spread into Texas. No violence has been reported. Contract rig builders have refused to meet the strikers' demand for a $2 increase in daily wages. Most operators use lease forms that carry strike clauses so are making no effort to proceed with their normal volume of new drilling.

Mostly in Lea County

The strike has been more effective in Lea County where derricks are used in drilling the wells, except in a few sectors of the sandy-lime belt. Machines are used in a number of the active West Texas areas, thereby enabling a substantial volume of new work to continue in spite of the labor dispute.

Rotary drilling crews are bearing the brunt of the strike. Each completion forces from three to four full crews into an indefinite period of idleness. Most of the contractors are providing sustenance for their workmen in order to have full crews when work is resumed, as skilled labor has been short of the demand for some months because of the heavy migration to Oklahoma.

Striking rig builders are demanding $14 per day, and $16 wage for foremen. Strike leaders produced cash to feed members of the United Rig Builders' Union at restaurants when the New Mexico group walked out.

Reports indicate that union officials are to invade other areas in Texas to try and attain a complete shutdown on new drilling that involves rig builders' labor, and if successful will then attempt to launch a strike among drilling crews for higher wages.

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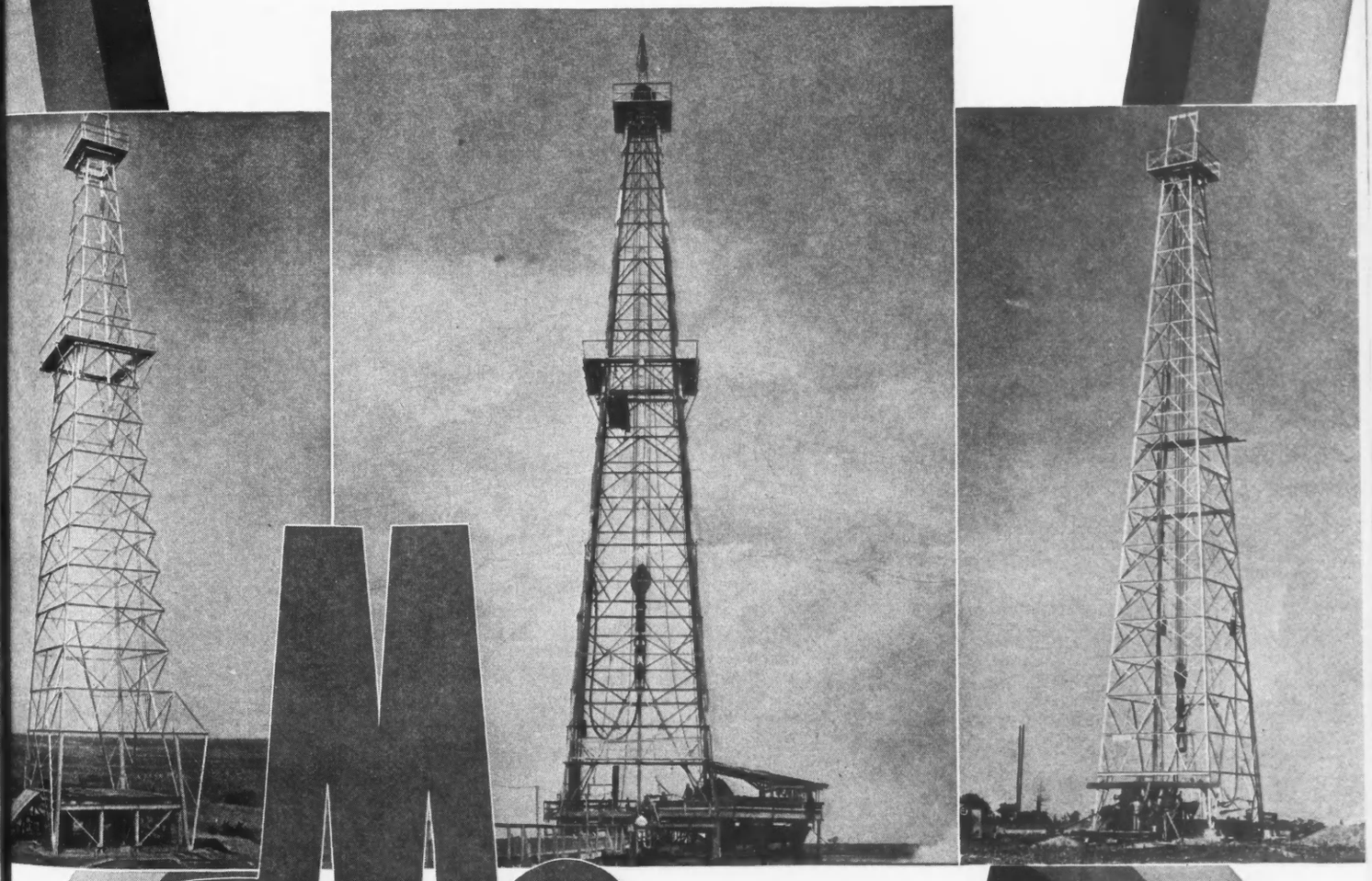
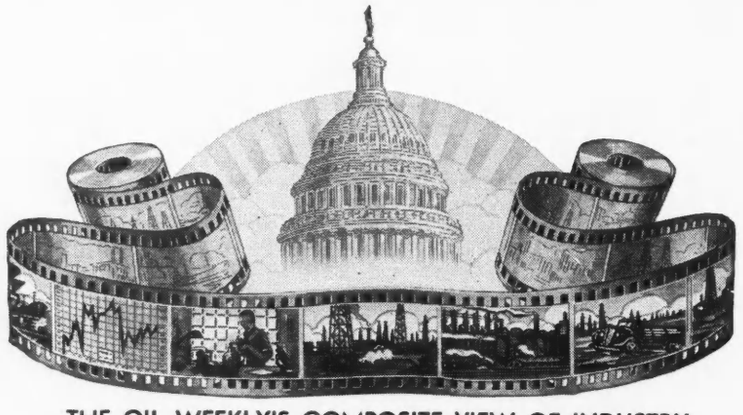


DERRICKS
PUMPING EQUIPMENT
Moore

The Changing Panorama



THE OIL WEEKLY'S COMPOSITE VIEW OF INDUSTRY

Edited by L. J. LOGAN, Associate Editor

MORE encouraging for the oil industry than any of the present promising figures and statistics is the cooperative spirit that prevails within the industry and among the conservation officials of the leading producing states.

Oil producers and state authorities have joined hands in a whole-hearted move toward getting favorable results in July; and since this noteworthy team work already has strengthened the markets, it seems quite possible that the cooperation will be extended into the months ahead.

Cooperation Brings Improvement

It is comforting that petroleum consumption is running this year at all-time record levels; that the demand is expected to be especially strong in July; that success looms for the month in balancing supply with demand. But it is even more encouraging that the oil producers and state officials are working together; that self-restraint is being practiced for the common good; that the various states are putting shoulders to the wheel in a determined effort to get clear of the quagmire of overproduction, in which the industry has been laboring for several months.

If this spirit of cooperation can be maintained, the industry quite likely will go through the rest of the year enjoying profitable operations; although a letdown of team work rapidly might bring on a serious break of markets and prices, especially after the summer months, since gasoline inventories are larger than desirable.

Good July Results in Prospect

In any event, it is practically assured that present cooperation will bring a close balancing of petroleum supply and demand until the end of July.

The close adjustment of supply to demand in July is provided for under the rigid control planned in the leading states of the Mid-Continent.

Oklahoma and Kansas have proved again that they can be depended upon to do their part in holding the nation's production down properly. Late last week it was indicated that for the second successive month, both states during July will observe allowables not merely adhering to Bureau of Mines recommendations but substantially under the federal allocations.

Texas, similarly, demonstrated good faith a week previously by taking a 56,000-barrel cut, effective June 20, that brought the state's allowable under the Bureau of Mines recommendation for July.

New Mexico also will adhere to the federal suggestions fairly well in July.

Consequently, the only important excesses that loom for July are those expected in Louisiana and California. As throughout the past year, those two states in July likely will produce substantially more than their federal allocations, no improvement in their control programs being in sight.

Interstate Compact Is Constructive

In connection with the present cooperation among the important Mid-Continent producing states, much credit is due to the Interstate Oil Compact Commission. Oklahoma, Kansas, Texas, and New Mexico are among the states participating in the compact, and the compact commission facilitated the cooperative efforts of these states in adopting July allowables. Similarly, the compact had served as a constructive force in June.

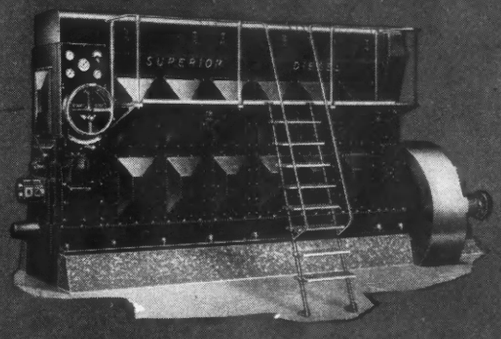
The two important oil states, Louisiana and California, that have been failing to cooperate in national production control, are not members of the Interstate Oil Compact.

States Working Together Better

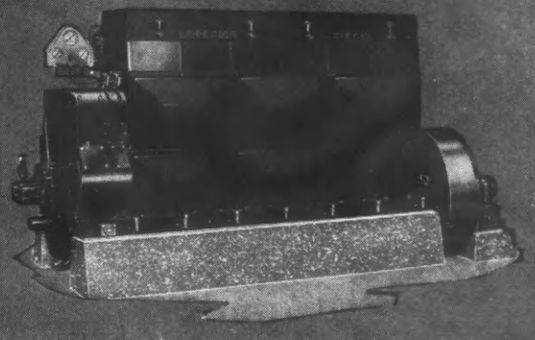
The cooperation that now prevails in Texas, Oklahoma, Kansas and New Mexico is in contrast with the situation previously existing. During the past several months there was not full cooperation among the states. In April and May there was open bickering, with different states critizing each other for exceeding federal quotas. But it became generally obvious that lack of team work was causing difficulties and unsatisfactory results. Consequently, in June there was better cooperation, and still more improvement is in prospect for July.

The developments of the past few months apparently have brought a more general recognition of a

Superior DIESELS for Pipe Lines



Sizes from 25 to 800 H. P. for driving pipe line pumps direct or through gears. Specially designed for variable speed load. Convertible to gas.



At right: 9" x 12", 130 H. P. to 350 H. P., in 3 to 8 cylinders, speed range under governor control, 200 to 600 R. P. M.

Above: larger sizes in 11½" x 14", 12½" x 15" and 14½" x 18" for powers up to 800 H. P.

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Small Diesel generator sets 10 KW to 60 KW
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fact that previously was overlooked or misunderstood. This fact is that in the national balancing of oil supply with demand, a state's self-restraint is not necessarily self-sacrifice. The self-restraint may be self-improvement.

It is true that by practicing rigid self-restraint, a state helps the markets in other states; but at the same time, that particular state also is helping the markets within its own boundaries. If Texas reduces its crude output 50,000 barrels a day, it helps the whole industry, but more important from its own standpoint, it helps the oil business in Texas. Irrespective of the beneficial effect in Oklahoma or some other state, the reduction is justified because it means a stronger or higher market for more than a million barrels of Texas oil daily—a better market for the oil from each of 61,000 Texas wells. Similarly, self-restraint in Oklahoma is imperative not primarily for helping the markets in other states but for making good markets in Oklahoma; and the same is true in the other states. It is a good thing for a man to be law-abiding, because his good conduct makes for national uprightness. But even more important, from the man's individual standpoint, the good conduct keeps him out of jail. His self-restraint brings its own reward. Similarly, an oil state's self-restraint brings its own reward.

Laxity Is Penalized

In like manner, lack of self-restraint, for the individual or oil state, sooner or later brings its own penalty. The man flouting the usual rules not only harms others but also gets himself into trouble. The oil state that fails or refuses to practice reasonable self-restraint not only unbalances the national market situation, but also promotes weak markets within its own borders. It cannot do damage to the national market without at the same time weakening its own markets. California, for instance, last year threw its wells wide open for a while, and the result was not only an unsettling of the national market situation but also a costly break in the markets within California's own borders. In fact, most of the damage was confined within the limits of the state itself.

In the Mid-Continent at present there seems to be a general recognition that each state must do its part if it is to expect favorable results.

Compact Meeting Scheduled

In view of the benefits that have been contributed in recent months by the Interstate Oil Compact, considerable importance attaches to the meeting of the compact commission at Dallas July 30. One of the purposes of the meeting is to start a movement for new legislation in the oil states authorizing continuation of the compact. As it exists now, the compact will expire September 1, 1937. Further legislation in the states will be needed to extend the agreement. Oklahoma's representative in the compact has indicated a bill will be introduced in that state in the next legislature, calling for a two-year renewal of the agreement.

Restraint at Refineries Needed

Although much optimism was generated last week by the Bureau of Mines estimates of the July demand for crude oil and gasoline, there is danger that this optimism may lead to excesses, particularly in refinery throughput. Crude production allowables for July already have been set, and they are sufficiently low to indicate that the national output will be held fairly close to federal recommendations. But there is some danger that the prospective heavy demand will induce refiners to process too much oil.

Gasoline inventories have been so high in recent months as to cause unsteadiness of the markets, and the aim of the refiners in July should be to bring about substantial reduction of the stocks. The Bureau of Mines in its recommendations for July suggests that the expected heavy consumption of the month should make it practicable to reduce the gasoline stocks approximately 5,000,000 barrels. The crude production quotas are predicated on such a change in the gasoline stocks.

Danger in Fuel Oil Situation

Within the industry there is some concern that gasoline output will be pushed too high in the months ahead not only by the comparatively strong demand for gasoline but also by the fuel oil situation. While California has extensive fuel oil stocks, the inventories east of the Rockies are comparatively low. In anticipation of the opening of the season of large fuel oil consumption about three months from now, these relatively small inventories are being viewed with some apprehension. This situation offers the danger that fuel oil production will be stepped up substantially, and that this accelerated output will bring at the same time an undesirably high production of gasoline. Some of the economists are deprecating this idea of a possible scarcity of fuel oil, pointing out that in any event, supplies could be moved from California to the East, if necessary.

Nevertheless, it is not forgotten in the industry that the past winter brought an unusually large demand for fuel oil, and that the available supplies proved comparatively scarce. In fact, refiners found it necessary to make more fuel oil than they originally intended, and it was that increased production that was partially responsible for the building up of the present excessive supply of gasoline.

More Oil Burners in Use

Last winter's large consumption of fuel oil resulted not only from the unusually severe winter but also from a noteworthy increase in oil burner installations. Furthermore, there is in prospect a continued steady increase in the use of oil burners. The latest official figures available show that in the first three months of 1936, sales of domestic oil burners ran 61 percent higher than in the similar period of 1935. In the meantime, fuel oil consumption is increasing also along other fronts. The consumption by public utility plants in generating electric power was 9.2 percent greater in 1935 than in the previous year. Fuel oil consumption by the first class railroads meanwhile increased 6.7 percent. In the first four months of 1936, the total domestic demand for fuel oil and gas oil was 13 percent greater than in the similar period of 1935.

Although the oil industry is having some difficulty in adjusting itself to the sharp increase of fuel oil consumption, the larger business in fuel oil ultimately will prove decidedly advantageous. It will help to stabilize operations throughout the year, since the seasons of heavy consumption of fuel oil and of gasoline follow each other in a year-long cycle. In 1935 gas oil and fuel oil demand totaled 352,712,000 barrels, compared with motor fuel demand of 432,556,000 barrels. It has been estimated that the fuel oil consumption will forge ahead of gasoline consumption if and when oil burner installations fulfill their market potentialities.

MEN IN THE INDUSTRY'S NEWS

W. R. REED, Sinclair Prairie Pipe Line Company, has been appointed general superintendent with headquarters at Independence, Kansas. Reed, formerly assistant to J. R. Manion, president, takes the place made vacant by the death of J. F. Blake of Tulsa. W. E. Morrison has been made assistant general superintendent with Tulsa headquarters. Previously he was division superintendent at Shawnee. B. M. Horsley, formerly connection foreman at Oklahoma City has been promoted to district foreman at Shawnee for Sinclair Prairie Pipe Line Company.

CLYDE BECKER, independent geologist, and an authority on southwestern Oklahoma, has accepted a position with Wasteka Oil Company.

RUSSELL W. GRIMES, geologist with Shell Petroleum Corporation, Houston, has resigned his position effective July 1 to become an independent operator and consulting geologist. Grimes has been associated with Shell Petroleum Corporation for the past 10 years, during the past year and a half of which he has been in the Houston office as division geologist in charge of West Texas and New Mexico. Prior to that time he was in the St. Louis office of the company.

J. A. ASSHETON, president and managing director of Cia. Mexicana de Petroleo "El Aguila" S.A., recently arrived in the United States from Mexico City for a vacation.

G. A. C. HALFF, Blanco Oil Company; Al Buchanan, Al Buchanan Drilling Company, and Frank Lefevre, Lefevre & Spice, all of San Antonio, have returned from a fishing trip on the Gulf of California. They flew from San Antonio to a point on the Gulf where Halff's yacht was anchored. Plenty of luck was their report.

MARSHALL BROWN, for the past four years in the production department of Gulf Oil Corporation in Colombia, has been transferred to the States. Temporarily he is located at the corporation's Drumright office.

C. H. WRIGHT, president, Sunray Oil Company, Tulsa, has returned from a trip to New York City.

W. S. (BUCK) MORRIS, proration engineer for Indian Territory Illuminating Oil Company, Oklahoma City, took the state bar examination last week.

GEORGE COATES and Rodney DeLange, independent operators and producers of San Antonio, recently left for a trip abroad. They will motor through Europe, inspecting several of the oil fields. They plan to see the Olympic games in Germany and will return October 1.

JOHN T. O'NEILL, Santa Clara Oil Company, San Antonio, spent several days in Los Angeles.

WALLACE R. FINNEY BECOMES HEAD OF OKLAHOMA PIPE LINE COMPANY AS E. H. LEROUX RETIRES

BOTH MEN HAVE ESTABLISHED ENVIABLE RECORDS

E. H. LEROUX

E. H. LEROUX, with Oklahoma Pipe Line Company since 1909 and the company's president since 1926, retires from active service July 1. Succeeding Leroux in the same capacity, Wallace R. Finney, who has been chief engineer of the Production Department of Standard Oil Company of New Jersey, will take over the operation of Oklahoma Pipe Line Company and Ajax Pipe Line Company in the Mid-Continent area. Both men have made enviable records in their organizations, each starting their careers from minor jobs in the industry.

Leroux was born near Rouseville, Pennsylvania, and first entered the industry as a barrel cleaner at a refinery at 50 cents a day. He later gained experience as a telegrapher and moved to the Mid-Continent area to accept a position near Neodesha, Kansas, as engineer in a pump station. From this point on, he advanced rapidly, continuing with the Standard Oil Company of New Jersey interests through 31 years of continuous service.

Finney, a native of California and 47 years of age, graduated from Leland Stanford University with the class of 1921 with an A.B. degree. He had previously had pipe line gang experience and refinery work. After completing his university work he was employed by the Midwest Refining Company in Wyoming, where he gained experience in the Salt Creek and Elk Basin oil fields. Continuing with that interest after the Midwest Refining Company was acquired by the Stanolind Oil & Gas Company, Finney gained experience throughout the east and in South America.

C. E. INMAN, for some time past with the Oklahoma City office of Caprock Oil Company, has been transferred to the company's Tulsa office as assistant petroleum accountant.

HIRAM NORCROSS has been transferred to Tulsa from Shell Petroleum Corporation's St. Louis offices. He will take over the duties as assistant to the head of the land department, H. W. Penterman.

RUDY PROCHASKA has been transferred from Skelly Oil Company's production department and has been named scout for the West Texas district.

J. D. CREVELING, formerly associated with Cities Service Gas Company, and well known member of the American Natural Gas Association, has been made president of Panhandle Eastern Pipe Line Company.

JAMES J. QUOYESER, assistant manager of Mexican Sinclair Petroleum Corporation at Tampico, Mexico, is spending a vacation in the United States.

HARRY M. NIELSEN and Bryant W. Allen, geologists with Mexican Gulf Oil Company in Mexico for a number of years past, have been transferred to the production division of the Gulf Oil Corporation.

Wm. B. GORMAN, Minneapolis, Minnesota, has accepted a position in the geological department of Empire Oil & Refining Company at Bartlesville, Oklahoma.

RICHARD M. RYAN, independent operator of Tampico, Mexico, is in Pittsburgh, Pennsylvania, on business.

C. W. (TOMMY) ATKINS of Santa Clara Oil Company, San Antonio, is vacationing in Washington.

E. B. RUBSAMEN, JR., of Trinity Drillers, Inc., drilling contracting concern, has returned to San Antonio from an extended trip in Mexico.

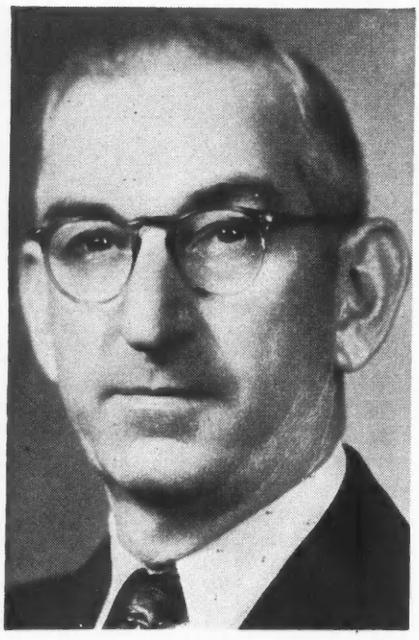
E. R. MUELLER, chief accountant of Shell Petroleum Corporation at Tulsa, is on vacation. Mrs. Mueller is accompanying him to northeastern points.

[*Continued on page 16*]

[*Continued from page 15*]

PERRY A. RATLIFF HAS COMPLETED OVER 37 YEARS WITHOUT A LOST DAY DUE TO SICKNESS OR INJURY

HE HAS BEEN ON THE JOB FOR THE CARTER OIL COMPANY SINCE 1898



PERRY A. RATLIFF

BACK in 1898, when The Carter Oil Company employees worked 365 twelve-hour days each year, when its rig-building gang cut the rigs from trees on the locations in the West Virginia hills, and when teamsters hauled gasoline in drums to the Ohio River and loaded it on barges, Perry A. Ratliff, now plant foreman of the Dunn Gasoline Plant, went to work for The Carter Oil Company under John J. Carter, founder of the organization.

Ratliff has built up the most unique record ever made with the company. He is now the longest service man, with 37 years and eight months. He has never lost a day through sickness or injury. He has not missed a pay check since a short layoff in 1903.

His first job was building rigs and doing other construction work in West Virginia. In 1911, he helped to build the company's first gasoline plant at Sistersville, West Virginia, under the supervision of George E. Edgett, now in charge of gasoline plants in the company. When the plant was completed, Ratliff went to work in it, running tour.

He came to Oklahoma in 1920 as chief engineer on the plant at Wann, later moving to the Burbank Plant in the same capacity. In 1930, he was transferred to the Dunn Plant as plant foreman.

Ratliff is looking forward to working until the time he will retire under an annuity plan which had not been conceived when he started to work. If he retires at 65, he will lack less than a year of completing a half century with The Carter Oil Company.

SYLVAIN PIRSON has been made assistant professor in charge of petroleum engineering at Pennslyvania State College.

J. E. McCONNELL, former assistant chief clerk for Humble Oil & Refining Company in the Gladewater district, has been transferred to the Talco, Texas, district as chief clerk.

RAY G. SAUER, who has been transportation foreman for Humble Oil & Refining Company in the Dickinson, Texas, district, now is in the Houston office, where he is in charge of the Houston Trucking Terminal.

W. L. CLARK, equipment manager, has resigned as engineer for the Kessler Oil & Gas Company to devote his full time to Clark Bottom Hole Intermitter Company.

J. B. STAMEY has become chief clerk at Humble Oil & Rening Company's Houston Trucking Terminal. He formerly was chief clerk for the company in the Roanoke, Louisiana, area.

E. D. COLE has been promoted from assistant chief clerk to chief clerk in the Roanoke, Louisiana, district for Humble Oil & Refining Company. He succeeds J. B. Stamey now in Houston.

CAPTAIN J. F. LUCEY, president of Lucey Petroleum Company, Dallas, and Mrs. Matney Dyer Munger, prominent Dallas socialite, were married June 21 at Texarkana. They were scheduled to sail later in the week for a wedding trip to Europe. Captain Lucey has been actively identified with the oil field equipment and production industry for many years, and was a member of the Hoover Belgian relief commission.

H. E. POTTER, who has been division petroleum engineer for Humble Oil & Refining Company at Wichita Falls, Texas, has been transferred to Tyler, Texas, where he is assistant division petroleum engineer for the East Texas division.

HUMBLE OIL & REFINING COMPANY will commence moving its office from San Antonio to Corpus Christi July 24 and will open in that city on July 27. The offices will be located in the Nixon Building. Only C. O. Falk, scout for the company in the Balcones Fault zone area, will remain in San Antonio and he will maintain his offices at his home, 337 Furr Drive.

DIED—

WILLIAM M. NEELY, retired oil operator who had been active in Mid-Continent development, died at his home in Wichita, Kansas. Neely started in the oil industry in Ohio, later entering the Kansas development as drilling contractor. In 1912 Neely entered the employ of Gypsy Oil Company as Kansas production superintendent, and was retired in 1925.

E. L. AYLING died recently at Ochelata, Oklahoma, of pneumonia. Ayling, in charge of Southern Oil & Gasoline Company's property between Ochelata and Bartlesville, started in the oil industry in 1903. He entered the Mid-Continent in 1907, coming from Erie County, Pennsylvania, his birth place.

A. M. (ART) WEAVER, 61, Tulsa, Oklahoma, died June 21 in Drumright, Oklahoma, from effects of sunstroke suffered earlier in the day. Burial was at Tulsa, Wednesday, June 24. He had been a cable tool contractor for about 40 years, starting in the Pennsylvania fields, where he was born. He came to Kansas and Oklahoma in 1903. Surviving relatives: his widow; one son, Russel D. Weaver, Ada, Oklahoma; two daughters, Mrs. Paul Milleson, Romney, West Virginia; Mrs. Harry Lackey, Tulsa; two sisters, Mrs. Vern Vensel, Tulsa; Mrs. Leslie Goodwin, Coffeyville, Kansas, and one brother, Ed. S. Weaver, Houston.

JAMES R. JONES, 55, attorney, died at St. Lukes Hospital, Denver, June 20 of pneumonia. Jones was prominent in the oil industry. After 13 years in government service, he joined the legal department of Shell Petroleum Company in Cheyenne, Wyoming. After two years with this concern, he commenced a private law practice in Cheyenne, and moved to Denver three years later. In Denver he continued his practice and also acted as attorney for Argo Oil Company.

J. T. BARLOW, independent operator of McAllen, Texas, died June 23. He was engaged in developing his producing properties in the Samfordyce field, at the time of his death.

SIDNEY T. MALLORY, pioneer Tulsa oil man, died at the home of his daughter, Mrs. J. Neilson, after a long illness. Mallory came to Tulsa in 1908 from Pennsylvania, and figured in the discovery of a number of Oklahoma and Kansas pools.

LEASE SALE

MUSKOGEE, OKLA.

SIXTY-FIVE of the 115 tracts offered at the concluding lease sale of the Five Civilized Tribes, as advertised, were sold for a cash bonus of $13,545.34. The number of acres listed for lease sale totaled 8125, 4820 acres being leased. Seminole, Okfuskee and Haskell counties received the biggest play from the 100 oil men present.

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Bridgeport Long Drill Collars
are used together.

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All sizes of Rotary Reamers carried in store stocks for sale or rental.

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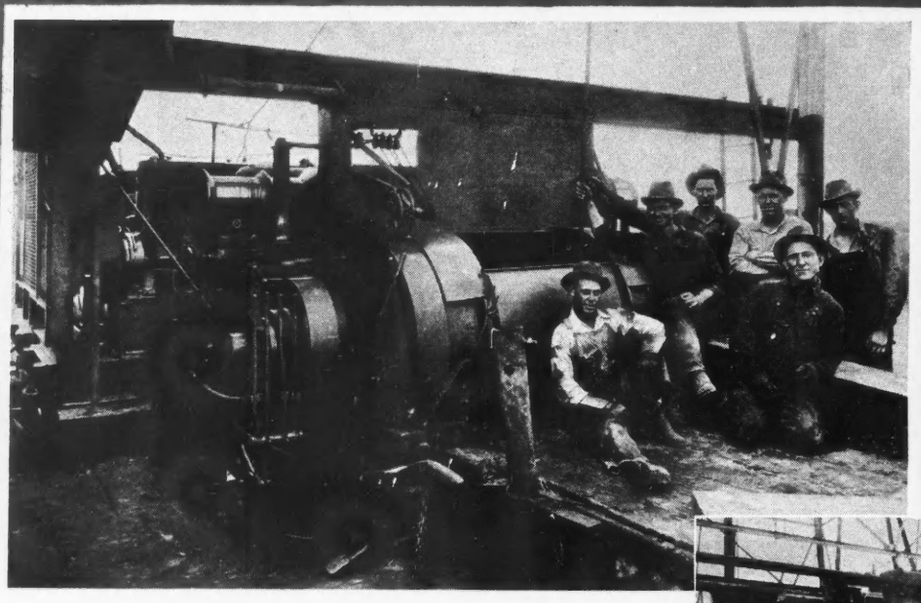
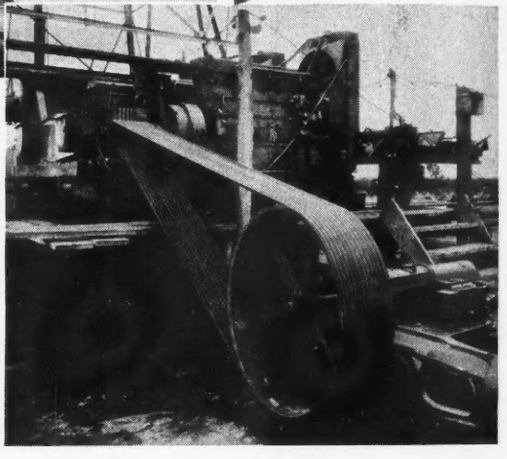
Breaking all records!



Here's the crew and rig that broke the record for New Mexico drilling. Crew from left to right: J. M. Cambron, helper; John Martin, driller; C. C. Drewery, helper; Langley, [illegible] boss; Tide Water Oil Co.; W. W. Ferguson, helper; and F. L. White, helper.

Below: Rear view of Wilson Rig, and drive.



WILSON DRILLING RIG COMPLETES HOLE IN 19 DAYS (ACTUAL DRILLING TIME 10 DAYS)

During Job Near Jal, New Mexico . . .

They bet five to one the hole couldn't be drilled within twenty-two days but the lease expired if the well was not producing by that time, so they put a dependable Wilson rig on the job. This is the actual record of Sun Oil Co., Stuart No. 1 near Jal, New Mexico, drilled by Mandeville & Thompson:

Contract was let 4:30 P.M. April 20. Location stake driven 11 P.M. Cellars, derrick and pit completed 22nd, and rigging up started. Well spudded-in midnight April 23. Drilled 360 feet, set and cemented casing 2 P.M. 24th. 48 hours for cement to set. Second string casing set and cemented 3300 feet May 5. 3 days for cement to set. Drilling-in started May 8, and by 11 P.M. the following day the well was completed. Thus, 19 days was the total time required for fully completing the job—from location stake to swabbing-in — three days ahead of time lease expired, and less than half the time ordinarily required for the same operation in this area . . . *and again it was proved that it takes a "Wilson" for miximum speed and dependability.*

This New Mexico record is typical of what is happening in Texas, Oklahoma, Kansas, Colorado, Michigan and foreign fields. It will pay you to investigate!

. . . *SPEAKING OF PORTABILITY*

. . . this record-breaking Wilson Rig used for drilling Sun Oil Co., Stuart No. 1 was dismantled and moved 25 miles to Kermit, Texas; rigged up and was drilling again in 31 hours. Gentlemen, that's portability!!

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Location of Water

FLOWS IN DRILL HOLES BY TEMPERATURE MEASUREMENTS

By H. GUYOD,
Schlumberger Well Surveying Corporation,
Houston, Texas

TWO important problems in the exploitation of oil that were very difficult of satisfactory solution until a few years ago are the location of and successful shutting off of water flows in wells. New and important aids have recently been introduced with new electrical logging processes supplemented by casing and cementing methods, all which are being used more and more.

However, there are still many wells making water in which it is impossible to know the level from which the water comes. These conditions are particularly frequent in wells completed upon the strength of very poor geological information. However, water intrusion also occurs unexpectedly in wells that have produced oil or gas for a certain length of time.

Whatever may be the cause of the encroachment of water in these wells, the level at which the water enters the hole is most difficult to locate accurately without resorting to special methods necessitating trained technicians provided with specialized equipment. The methods thus far used in the solution of these problems are well known to petroleum engineers. They consist largely of filling the hole with water unlike the water entering the hole, then studying the variations of a characteristic parameter of the water invading the well after a flow of this water has been caused by decreasing the hydrostatic head on the formation producing the water. From such variations, conclusions are drawn as to the level from which the water comes.

The parameters usually adopted for that purpose are the salinity of the mud, its transparency, and its chemical properties.

There are, however, other parameters which, although their adaptability to such investigations seems to be quite promising, have thus far seldom been used for the location of water flows in wells. Among them temperature is probably the most attractive.

If the thermometer method has never been used extensively in the past it is probably due to the difficulty encountered in manufacturing a practical thermometer meeting the conditions required for the measurements under consideration. Such an instrument must give an accurate, continuous, and rapid record of the temperature of the fluid filling the hole in terms of the depth. In addition, the measurements should preferably be made at the surface, while the thermometer is lowered in the well.

It has been only within the last few years that such instruments could be designed and successfully used for regular temperature measurements in oil wells, particularly for the study of the geothermal gradient, the logging of formations, and the control of cement jobs[1]. Such thermometers, however, were but seldom used for the location of water flows until recently when the possibility of adapting them to that problem was fully recognized.

Principle of Electrical Thermometer

The principle of one electrical thermometer is based of the fact that the resistance of an electrical

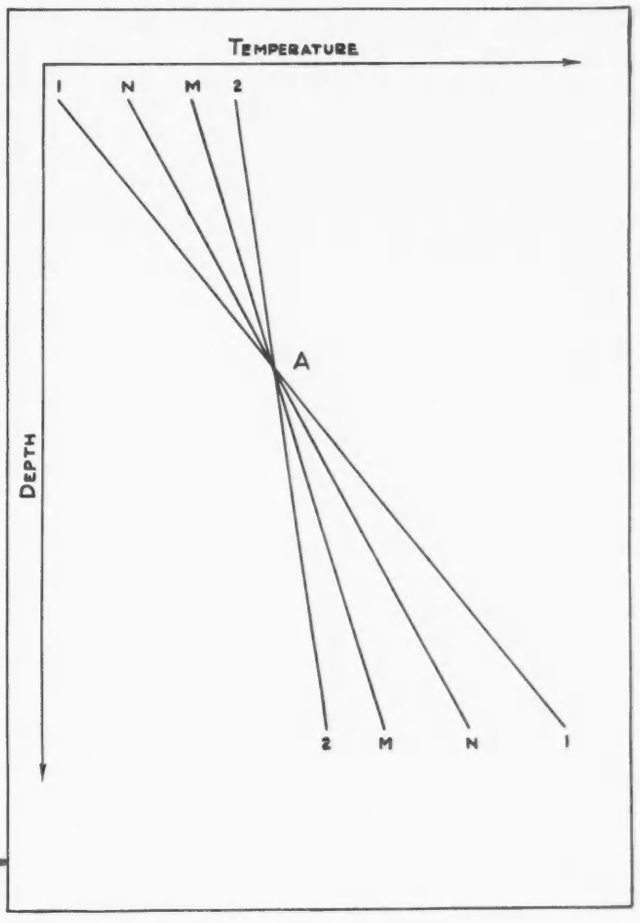


FIGURE 1

[1] See "The Economic Utility of Thermometric Measurements in Drill Holes in Connection with Drilling and Cementing Problems," by E. G. Leonardon. Bulletin of Society of Petroleum Geophysicists, Vol. No. 1, January, 1936.

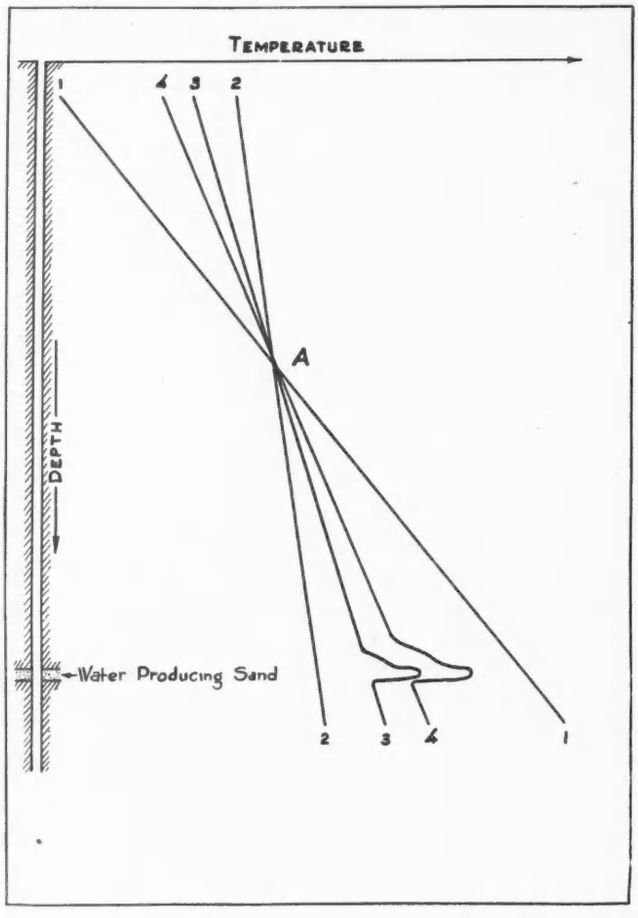


FIGURE 2

conductor is a well-known function of its temperature, said function being easily determined experimentally. The exact temperature of a fluid in which such a calibrated conductor is plunged can then be deduced immediately from the measurement of its electrical resistance.

The sensitivity of this method applied to the measurement of temperature in oil wells is very satisfactory. The accuracy of this method is in the order of ¼° Fahrenheit for a recording speed of about 1000 feet per hour.

Principle of Thermometric Method

Let us suppose that the well to be examined is filled with water or mud and that it has been kept idle for several days. A survey (first run) of the hole will give a temperature curve in terms of the depth which will show approximately the gradient of the formations (see Curve 1, Figure 1). If the mud is then circulated for a few hours, the equilibrium of temperature between the mud and the formation will be destroyed. A temperature survey (second run) made after this circulation will give a curve (2) crossing curve (1) at a point A[2]. Subsequent temperature surveys would give curves like M, N—comprised between curves 2 and 1.

Let us suppose now that the water to be located comes from the lower part of the hole. If, after the second run, the hydrostatic level of the well is decreased (for instance, by bailing a certain quantity of fluid) in order to produce a small flow of water into the hole, this water, which has about the same temperature as the formations from which it comes will be warmer than the fluid which it has displaced in the hole. A temperature run (third run), made immediately after bailing, will then give a curve similar to 3 (see Figure 2), showing a peak at the level at which the water is entering the well.

Further bailings followed by additional temperature runs would give curves like 4, substantiating the result obtained with the third run.

[2] Leonardon, E. G., Op. Cit.

Actual Examples

Actual examples of water flows located by this method are shown in Figures 3 and 4.

Referring to Figure 3, the curves 2 and 3 correspond to the second and third runs described in the preceding chapter. They show that the water is coming from 2856 to 2866 feet. This interpretation confirms, by the way, the result obtained by electrical logging, the diagrams of which are also plotted on the figure. Examination of the resistivity and porosity curves shows, in fact, that the most porous layers of the section 2856 to 2866 feet have a very low resistivity, which is a sign of the presence of salt water in them.

Referring to Figure 4, curve 1 was obtained after the well had been kept idle for four days. Curves 2,

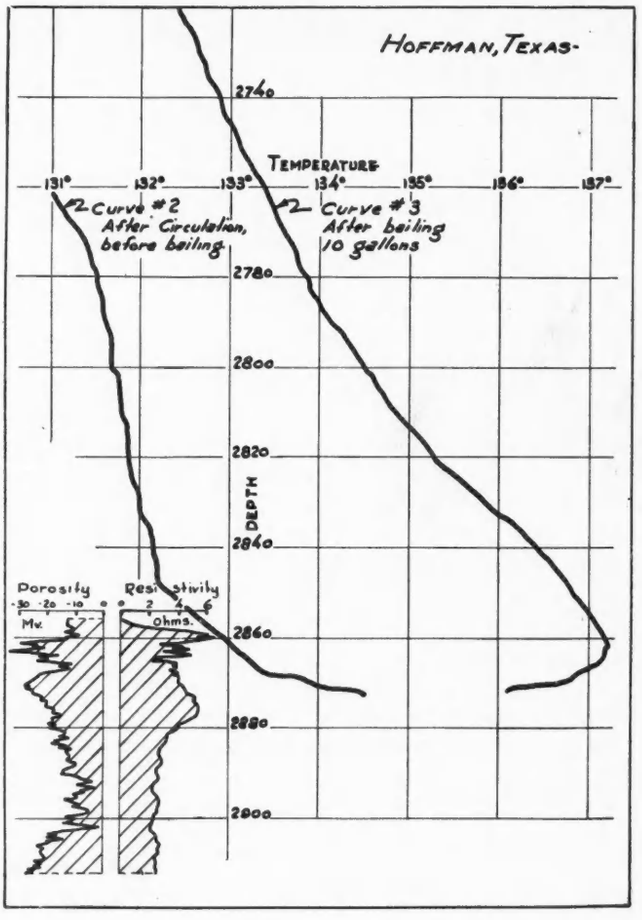
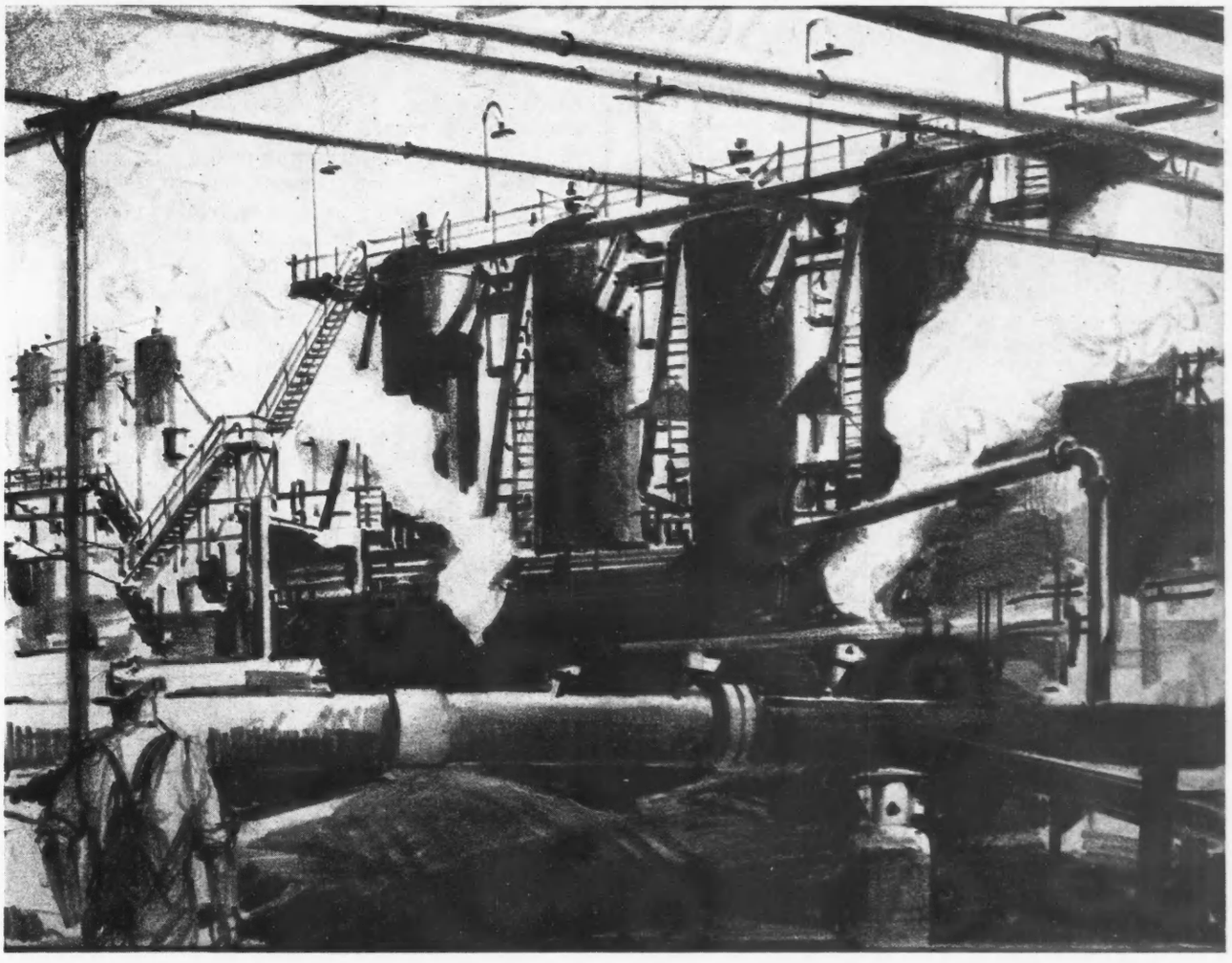


FIGURE 3



VACUUM STILLS *From a lithograph by E. M. Schiwetz*

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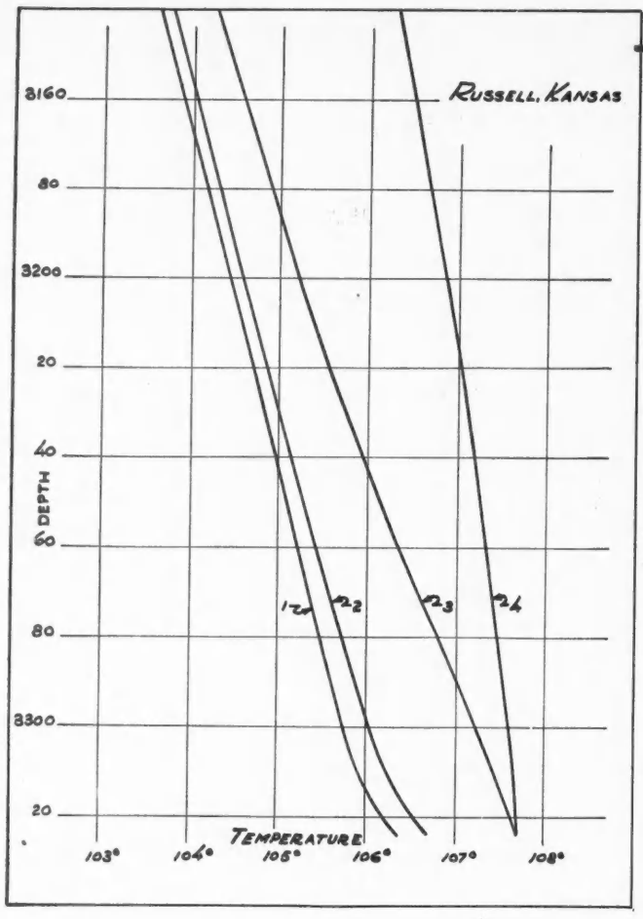


FIGURE 4

3, and 4 were taken after an increasing quantity of water had been bailed out of the hole. An examination of these curves indicates that the water is coming from below the bottom of the hole.

Variation of the Method

Due to the wide adaptability of the temperature process, numerous water flow problems can be solved still more easily and quickly by methods differing more or less from the one described above. One of these variations frequently used is described below.

When a well is being drilled, the circulation of mud cools the formations around the well to a certain radius R (see Figure 5). The length of this radius is a function of several factors such as depth, diameter of the hole, duration of the circulation, etc. The radius is probably several feet at least. Thermometric runs made at that time in a deep well will then show temperatures much lower than the temperature of the formations situated outside of the radius defined above. Now if a water-bearing formation, F, is allowed for a particular reason, production test for example, to produce a certain quantity of water into the well, the relatively cool water which was in the hatched section (see Figure 5) will have been replaced by a much warmer fluid, and the temperature of the formations situated within the radius R will be as indicated by curve 1. If a circulation of mud is then made, the thermometric state of the mud immediately after cessation of the circulation is as indicated by curve 2. This curve shows that the difference of temperature between the mud and the formations is particularly large opposite F. Consequently, the mud will warm up much more quickly opposite the bed which has produced water than opposite any other formation. A temperature survey made a few hours after the circulation has been discontinued will then give a curve similar to curve 3, showing an appreciable anomaly opposite the formations having produced water.

From the above theoretical example, it can be seen that a decided advantage of the method is that it does not necessitate any bailing or swabbing of the hole at the time of the survey. Another advantage is that the duration of the survey is very short, since the problem can be solved after a single temperature run. Unfortunately, this method is not always applicable since it requires a particular thermometric state of the well, which is not always at hand at the time of the survey.

An actual example of the determination of a water flow by this simple process is illustrated in Figure 6. The electrical porosity and resistivity logs are plotted on the chart also for a better comprehension of the survey.

The well in question was drilled through several water sands above 8440 feet. At 8445 to 8455 feet it penetrated a sand that was expected to carry oil

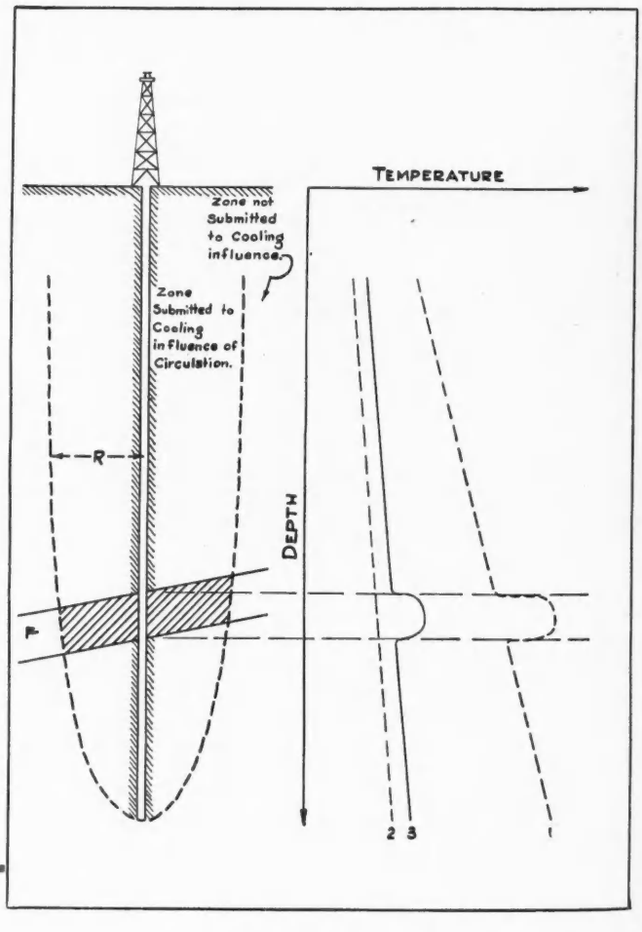
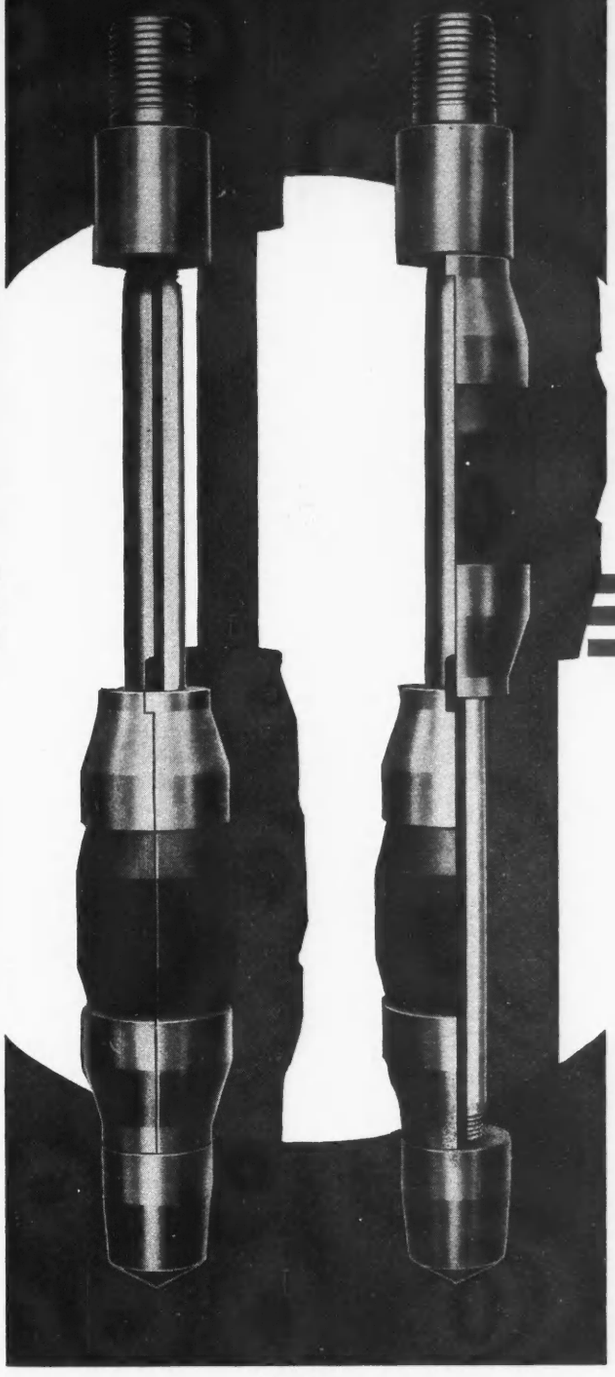


FIGURE 5

MISSION Valveless SWAB

PARRISH PATENTS



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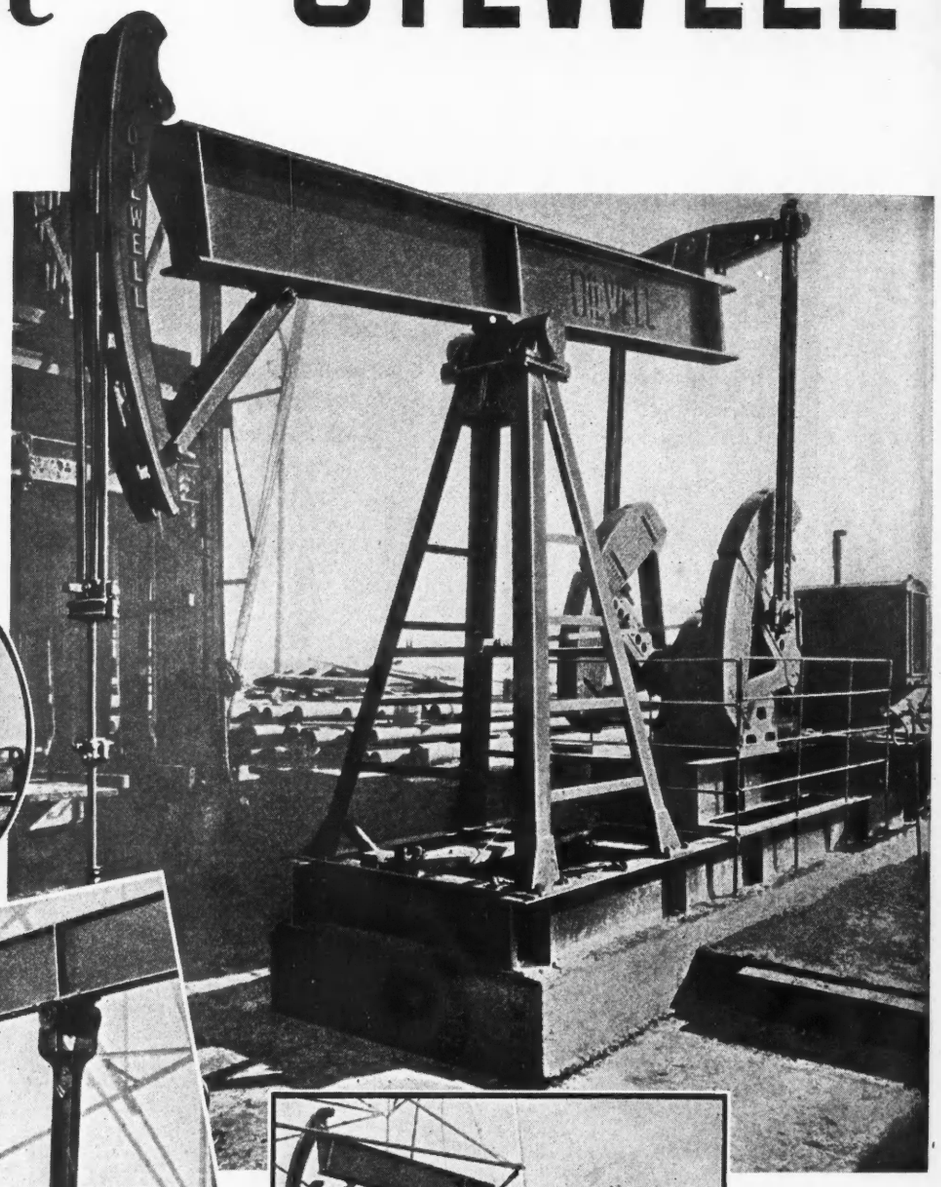
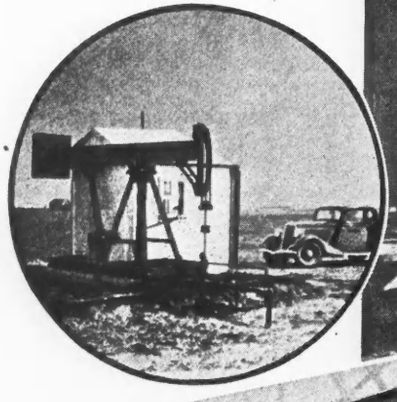
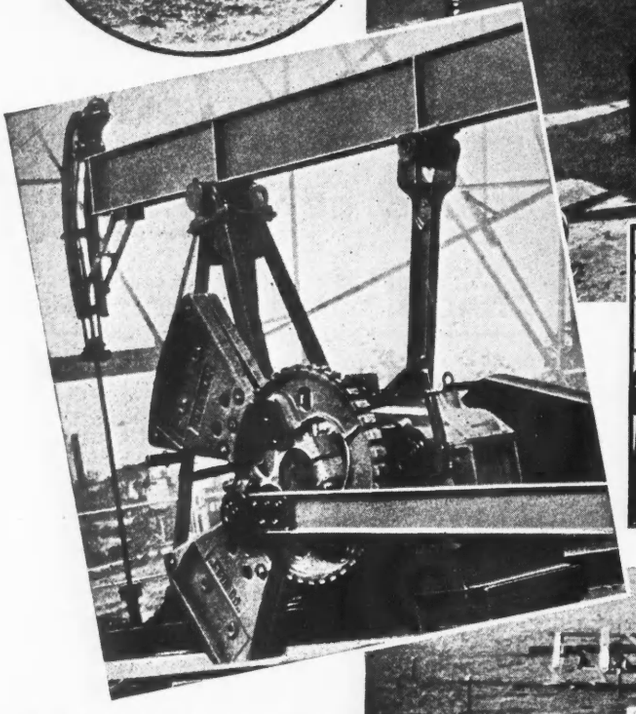


(*Right*) **TC-35 "Oilwell" Pumping Unit in California, driven by multi-cylinder engine.**

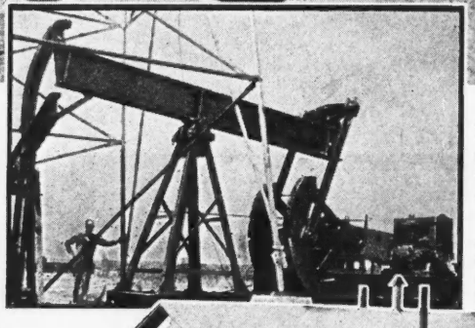
• • •

(*In Circle*) **One of seventy No. 10 "Oilwell" Pumping Units in the Cutbank Field in Montana (an "Oilwell" Service Car in the background).**





(*Above*) **This SC-20 "Oilwell" Pumping Unit has a wheel type crank and back crank arrangement for pumping 3 wells at Gladewater, Texas.**

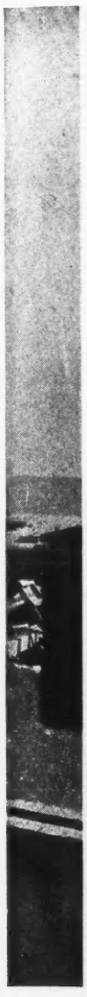


(*Left*) **Portable TC-27C "Oilwell" Pumping Unit making a potential production test in Kansas.**

• • •

(*Below*) **80-SC "Oilwell" Geared Power on a major producing company's lease in Kansas.**

lift your Oil



AFTER seeing the installations shown here and on other pages in this issue, production men will admit that Oil Well Supply Company has the machinery and experience to handle any kind of pumping problem.

But it's the service behind this equipment that we want you to know about and use. With the "Oilwell" Engineers' experience they have a real service to offer that will help you pump your wells day after day, at low cost, with the greatest recovery per dollar invested. Call on "Oilwell" Engineers to help you get this greater efficiency with "Oilwell" pumping equipment.

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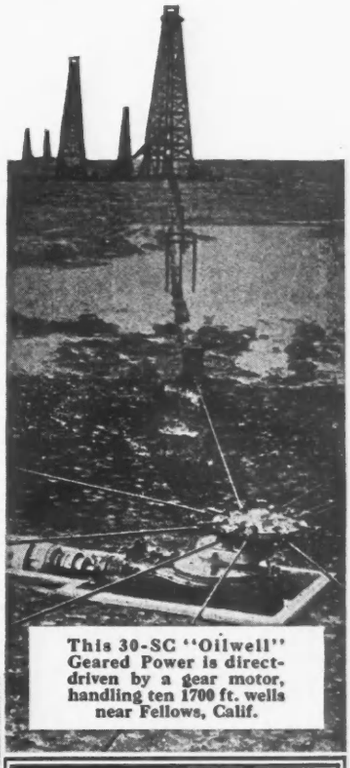
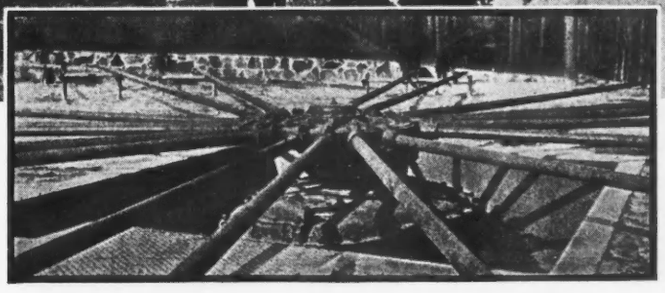


This 30-SC "Oilwell" Geared Power is direct-driven by a gear motor, handling ten 1700 ft. wells near Fellows, Calif.

(*Below*) This No. 50 "Oilwell" Geared Power is driven by a Waukesha multi-cylinder engine in the open. No housing cost is incurred.



(*Right*) This 150-SC "Oilwell" Geared Power is hooked up to 18 wells averaging 3500 feet in depth in East Texas.

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and which the company decided to exploit. However, due to technical difficulties, the casing could not be landed deeper than 8400 feet, and it was necessary to run to the bottom of the hole a screen provided with packers. The production test, however, gave only water.

A temperature survey carried out a few hours after a circulation of water gave a very large anomaly at 8360 to 8435 feet, which was easily interpreted as being due to the sands which had produced water.

This anomaly is of 14° F. Other anomalies of a few degrees can be seen opposite the water sands situated above 8440 feet, although these sands did not produce any water into the well. Such anomalies are due only to the high thermic conductivity and thermic capacity of the water sands themselves.[3]

Conclusion

The examples discussed above show that the thermometric method can be profitably exploited for the solution of water flow problems in wells. Its main advantage is that it does not require a difficult conditioning of the well; a short circulation of the mud or water filling the hole is sufficient.

Another important advantage lies in the fact that due to the high thermic conductivity of the casing, circulation of water can be studied, and water-producing sands located behind the casing. This is particularly useful and important for the reconditioning of wells (squeezing jobs in particular).

Of course, the thermometric technique of solving water flow problems is a quite recent development and can be improved after a large number of surveys have been made under various conditions. Nevertheless, we believe that the results already obtained are more than encouraging and of sufficient interest to be made public.

Acknowledgements

We wish to acknowledge the friendly and very valuable cooperation of Jefferson Lake Oil Company, Rogers and Rogers, and others, through the courtesy of which it has been possible to illustrate this paper with actual examples of field work.

[3] Leonardon, E. G., Op. Cit.

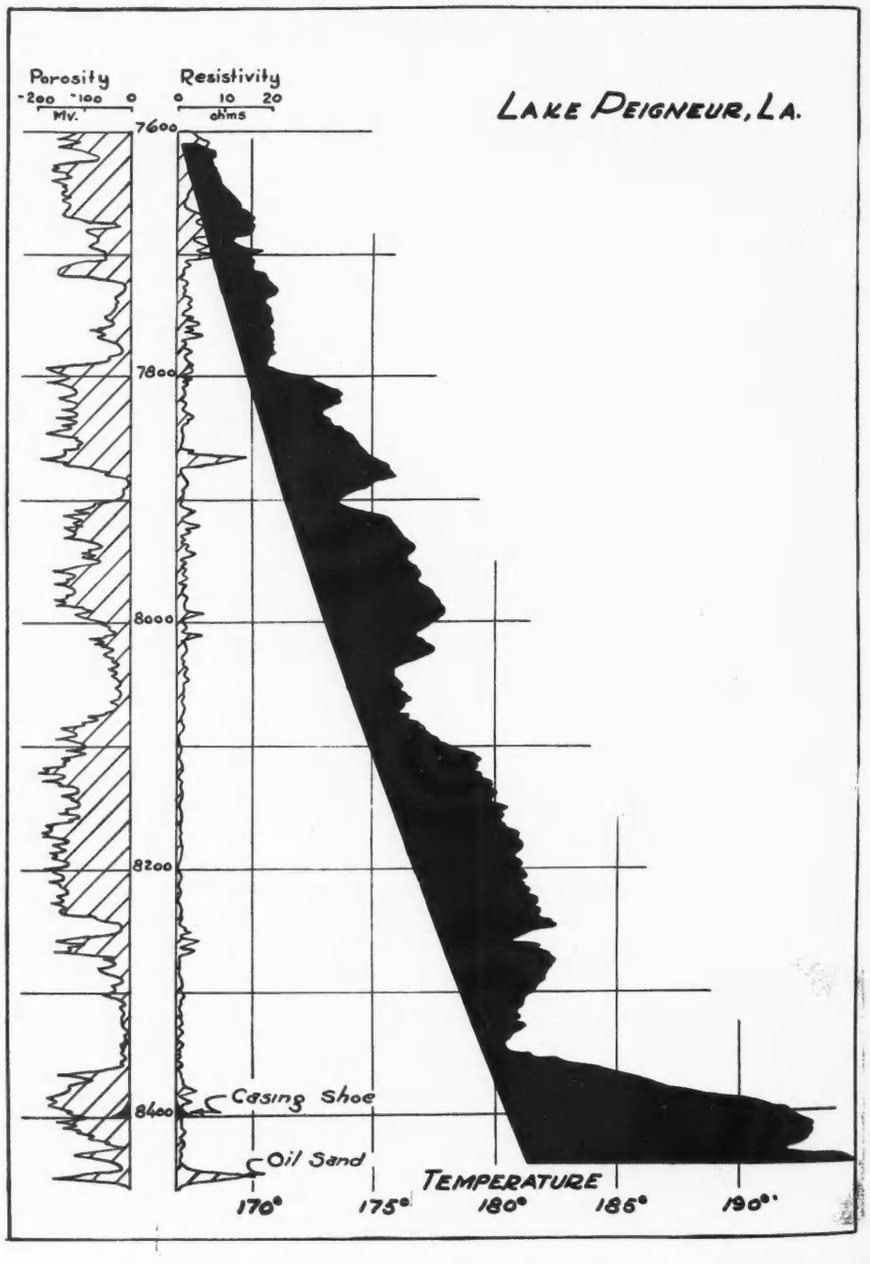

FIGURE 6

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An Alignment Chart

FOR MEASUREMENT OF GAS WITH THE ORIFICE METER

By CURTIS MAYES, Assistant, School of Mechanical Engineer, the University of Oklahoma.

IN the measurement of natural gas, it is common practice to express the flow in cubic feet per hour, or day, referred to some specific reference or base condition of pressure and temperature. The calculation of the quantity of gas flowing is made by the use of the formula:

$$Q_h = C' \sqrt{h_w p_f}$$

Where,

Q_h, is the quantity rate of flow, in cubic feet per hour, or day at base conditions.
C', is the orifice flow constant, consisting of all the conversion factors to convert flowing conditions to base conditions.
h_w, is the differential pressure in inches of water.
p_f, is the static pressure in pounds per square inch absolute.

The application of this formula does not present an extremely difficult problem, but to those who are engaged in the measurement of gas the time necessary to compute the quantity of gas flowing is appreciable. For the field engineer, who is often without the facilities for making such calculations, a chart of this type serves the purpose quite well. For these reasons an alignment chart of this formula has been constructed.

In the use of an alignment chart to solve formulae it is well to keep in mind their disadvantages as well as their advantages. The accuracy of the results obtained will, of course, depend largely upon the person using the chart and the accuracy of the data used. In this chart the portion subject to the greatest possible error will be found at the lower end of the scale of the extension and the differential pressure. Small errors in locating points on these scales will result in appreciable error in the quantity rate of flow. This should be kept in mind when drawing lines from one scale to another. However, it is seldom that the basic data is observed with a greater degree of accuracy than can be obtained with the chart. Consequently, the accuracy limitations are usually negligible.

To proceed with the solution of a typical problem in which the flow formula would be used, let it be assumed that the result desired shall be the quantity rate of flow in cubic feet per hour. The static pressure, differential pressure, and the orifice flow constant are usually the known quantities when the flow rate is to be computed. It is first necessary to correct the static pressure to absolute static pressure. This is done in one operation on the chart by merely locating the gage pressure on the right side of the scale; the absolute static pressure is plotted on the other side of the same scale. From this point, draw a straight line to a point on the differential pressure scale corresponding to the observed differential in inches of water. This line will intersect the scale of the extension

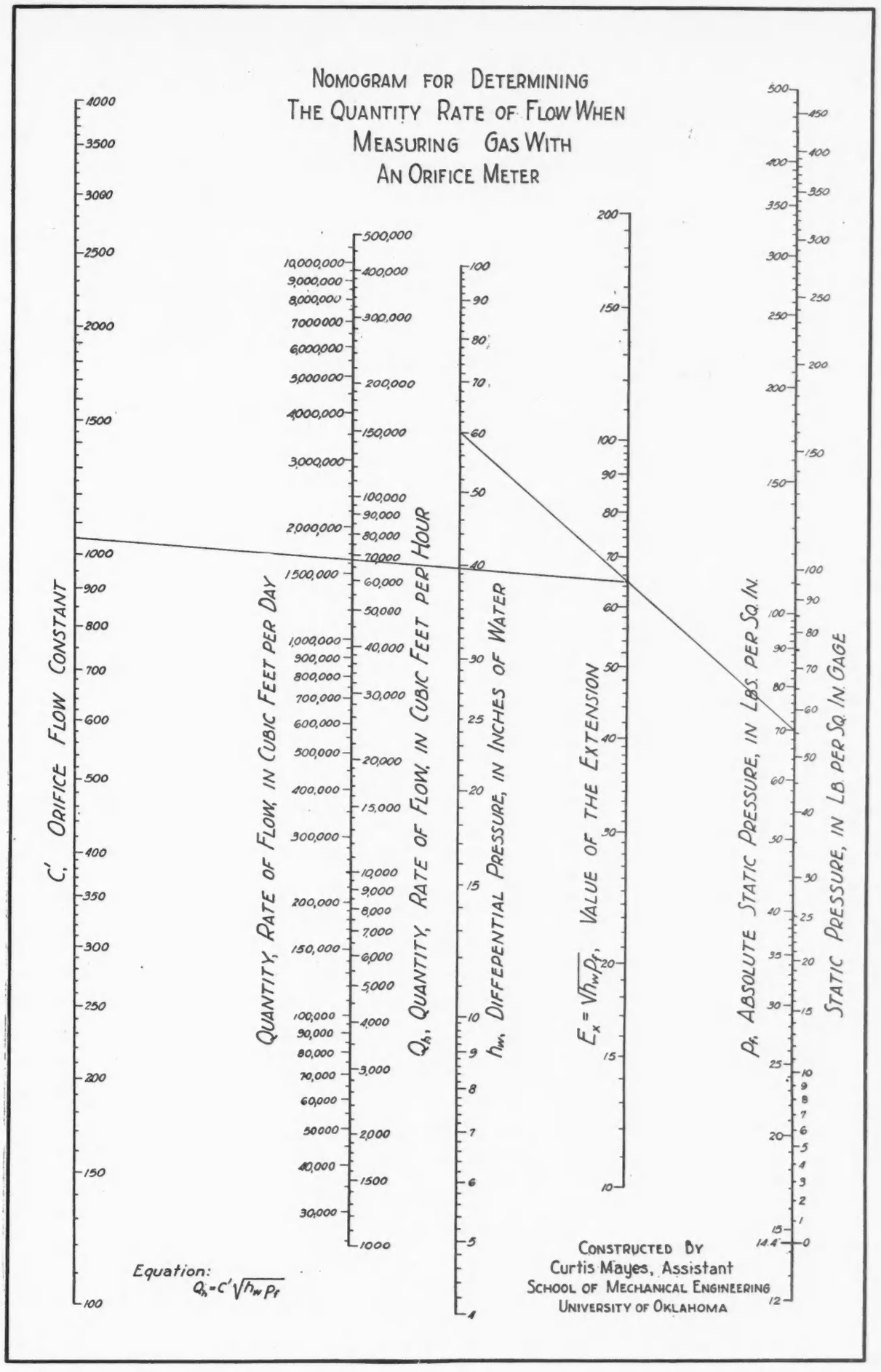
$$\left(E_x = \sqrt{h_w P_f}\right)$$

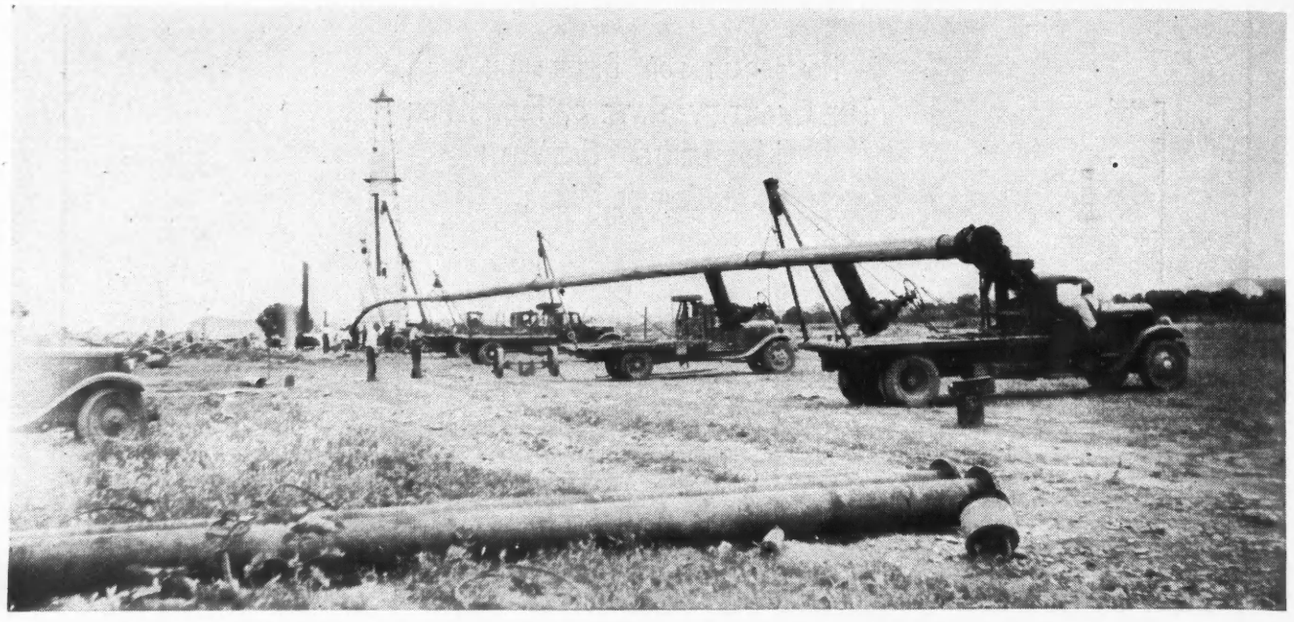
and its value may be read directly. Next, draw a straight line from the extension to the orifice flow constant applicable to the conditions of measurement and read the result at the intersection of this line with the quantity rate or flow scale. The daily rate of flow may be observed by noting the point of intersection of the second straight line with the coincident daily flow scale.

When orifice meters are employed to measure the flow of gas, care must be exercised to keep the differential pressure high enough to enable one to read it with a fairly high degree of accuracy. When the differential pressure is low, there may be an appreciable error in the calculated flow, due to the fact that a small error in reading the meter chart might be an appreciable percentage of the total differential. An alignment chart may be used to an advantage in this connection. The field engineer can take the quantity calculated from the data obtained and work back to find the proper orifice flow constant and, consequently, the right size orifice to give a higher differential pressure, which would in turn give a more accurate indication of the quantity rate of flow. This may be done as follows:

After calculating the flow as accurately as the low differential pressure will permit, locate this value on the scale Q_h. Then, from this point, draw a line to a point on the extension scale such that, when a line is drawn from the static pressure scale through this predetermined point on the extension, a differential pressure will be indicated, that will result in a more accurate indication of the flow. Now extend the line drawn from Q_h to E_x on to the C' scale where the new orifice flow constant will now be found. This constant may now be looked up in a handbook and the orifice, whose constant will most closely check this value, should be inserted in the line.

It is obvious that any one of the variables of an equation may be solved by mere mathematical manipulation. In solving equations by use of alignment charts, any one of the variables may be solved by beginning at different points on the chart. Ease of use and the application of these charts becomes more apparent as familiarity with them is developed.


NOMOGRAM FOR DETERMINING
THE QUANTITY RATE OF FLOW WHEN
MEASURING GAS WITH
AN ORIFICE METER
C', ORIFICE FLOW CONSTANT
QUANTITY, RATE OF FLOW, IN CUBIC FEET PER DAY
Q_h, QUANTITY, RATE OF FLOW, IN CUBIC FEET PER HOUR
h_w, DIFFERENTIAL PRESSURE, IN INCHES OF WATER
E_x = √(h_w P_f), VALUE OF THE EXTENSION
P_f, ABSOLUTE STATIC PRESSURE, IN LBS. PER SQ. IN.
STATIC PRESSURE, IN LB. PER SQ. IN GAGE
Equation:
$Q_h = C'\sqrt{h_w P_f}$
CONSTRUCTED BY
Curtis Mayes, Assistant
SCHOOL OF MECHANICAL ENGINEERING
UNIVERSITY OF OKLAHOMA



Battery of five trucks lifting the 7-ton escape manifold preparatory to backing it to the well site, where it was lowered into position to make connections. At the fore end of the manifold may be seen the welded arms with 10-inch gates and collars to which 20 feet of stand pipe were connected. Gas from the well is now burning at the stand pipes.

UNIQUE METHOD USED IN

Snuffing Out

WILD WYOMING GAS WELL

By R. L. HAZLETT, Staff Writer

THROUGH a unique method of introducing torpedoes through a water-cooled casing and by lowering a 300-foot escape manifold into position with winch trucks, fire burning since February 27 at Stock Oil Company's wild gasser on Garland Anticline, Big Horn County, northern Wyoming, was extinguished June 11, and gas cased off to stand pipes. The crew may now work in comparative safety at the well mouth in their efforts to kill the 60,000,000 cubic foot daily flow of gas.

Because of the terrific heat from the flame of Allen 1, SW NW SE 35-56n-97w, it was found necessary to snuff out the fire and draw the gas to the side in order to cement off old abandoned holes within a radius of 300 feet. Vagrant gas circulating out of the hole of Allen 1 through the Dakota series and up crevices and out the holes of these abandoned Frontier wells presented a constant fire hazard and the danger of gas poisoning. (Gas developed in the Embar-Tensleep at Garland has a Btu count of 1040 units and contains 1.9 percent hydrogen sulphide. Gas is being used for industrial purposes, but it is not suited for domestic purposes without scrubbing.) In addition to the gas hazard, water pumped in from Ohio Oil Company's Smith 12, 625 south by southwest from Allen 1, and pumped from Allen 1-X, 420 feet due east of the gasser, was dissipated in its force to bridge hole in the wild well as part of the water content was returning through the old holes.

Introduce Shot Through A Cannon

Frank Lesh, veteran oil well shooter of Casper, Wyo., was called to shoot out the fire. He suggested that the shots be introduced through a water-cooled barrel made up from oil well casing. Under the supervision of John McFayden, vice-president and superintendent of western operations for Ohio Oil Company, an apparatus similar to an elongated cannon was made up out of oil field parts in Ohio Oil Company's machine shops at Byron, Wyo. Ohio Oil Company is co-operating with Stock Oil Company in its efforts to kill the well.

The "Cannon" consists of 300 feet of old junk six-inch casing. In the center of the first joint of casing

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a two-inch collar was welded and a swing connection made up and joined to 40 joints of two-inch swing pipe with 20 feet joints between elbows, and the swing pipe joined to two-inch water line to pumps nearby.

Two torpedoes, five inches in diameter and five feet two inches in length, were coupled together and loaded at the breech and set at a point just beyond the connection for by-passing water into the casing-barrel. The torpedoes were loaded with 20 quarts of oil well solidified explosive each. An electric line with separate connections to detonating caps in each torpedo was passed out through a hole in the bull plug closing the breech end of the casing.

A sand line was attached to the front torpedo and passed through a hole in the bull plug closing the muzzle of the casing barrel. An over-hanging pulley assembly, on struts at 45 degree angle from the muzzle of the casing, held the pulley wheel a few inches beyond the bull plug and guided the torpedo line back to operators standing a safe distance from the well.

Thirty feet from its muzzle end the casing was mounted on boiler wheels. Ahead of the boiler wheels, toward the muzzle, the top of the pipe was vented to allow water to circulate out.

The cannon assembly was wheeled into position 200 yards from the well. Winch trucks were stationed 300 yards to each side of the well and cables from these trucks were attached to the canno near its breech. The cannon was then pulled into position with its muzzle over the cellar of the well and near the top of the 12½-inch surface string casing in Allen 1. During the period of wheeling the cannon into position, water was pumped continuously through the casing barrel. When the muzzle was in position the torpedoes were pulled into the muzzle by the sand line and detonated from the battery primer a quarter of a mile back from the well.

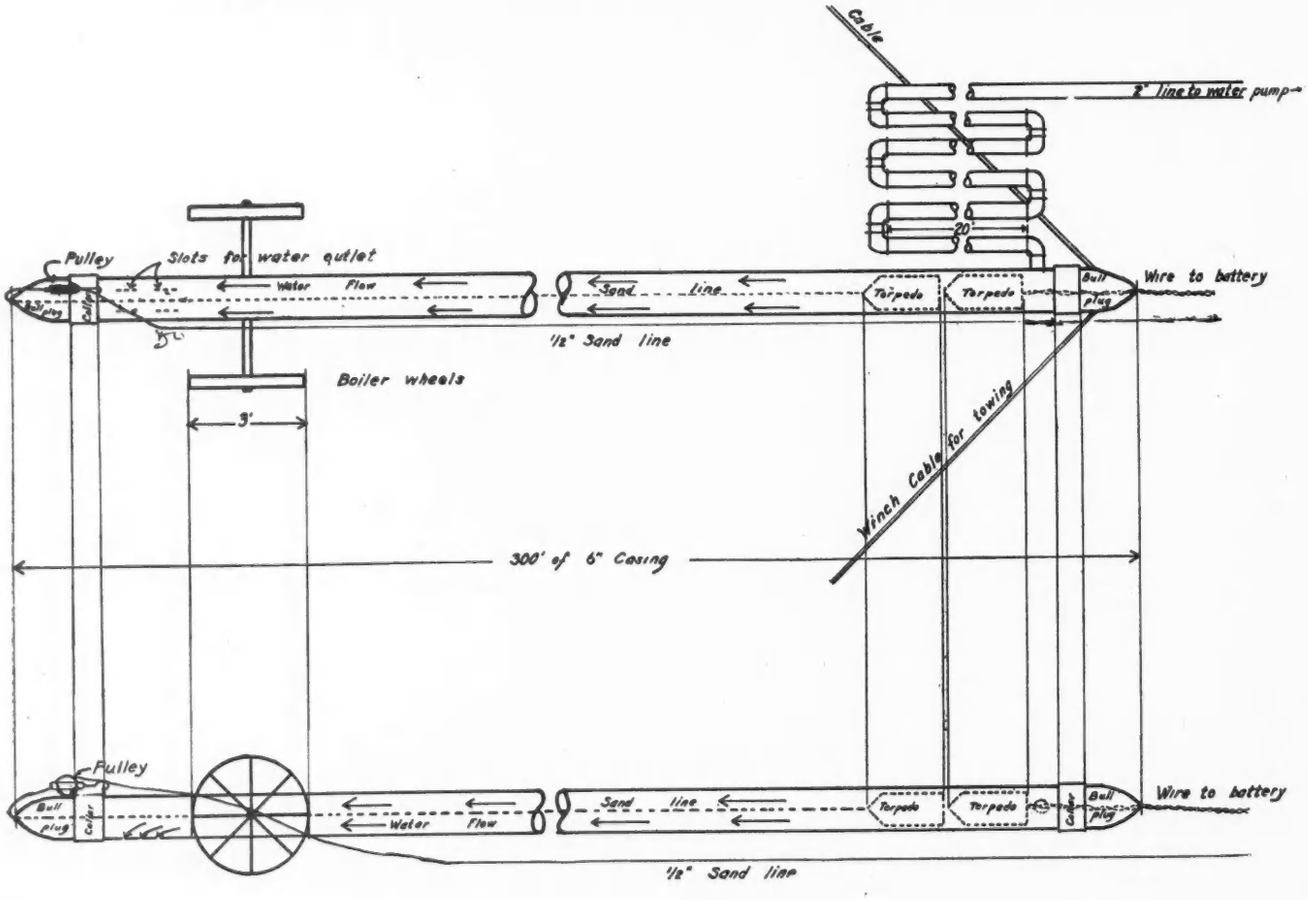
The water not only acted as cooling agent, but as a hydraulic cushion in directing the shot in the gas jet. Only the muzzle joint was lost in the explosion. After shooting out the flame, old iron and twisted debris was snaked from the well site. In this operation, three 3-inch water lines were laid to the well. The lines continually poured water into the cellar of the well, and men were stationed with fire hoses attached to other lines to play water on the debris that was red hot at the mouth of the fire. The cement lining the cellar and the tons of iron around the well had to be quickly cooled to prevent refiring of the well.

Escape Manifold Eliminates Hazard

The escape manifold was made up of 300 feet 10-inch 40 pound casing. At the outlet end two 10-inch gates were welded into the last two joints. Collars for joining the two 20-foot 10-inch stand pipes were screwed into the gates. After the lateral casing was connected to hole of Allen 1, the stand pipes were placed to vent gas to the air and to be burned if necessary.

On the well end, and in the center of the first joint, there was a 14-foot joint of 10-inch casing welded to give as little resistance as possible to the gas entering the 10-inch vent pipe. The 14-foot arm was cut off diagonally for ease in guiding it into the surface casing with its 12½-inch collar anchored to the cellar floor. Just above the T-connection of the manifold to

The water-cooled barrel in which the torpedoes were introduced into the well and set off by electric detonating.



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the well mouth, a 10-inch collar was welded. This 10-inch joint was swedged to 6-inches for a gate. The gate was placed at this point to allow operators to pump directly into hole if necessary. A 10-inch gate was placed at the escape end of the vent pipe and its dead end extending beyond the well was plugged.

After the manifold was made up in a line about 50 feet from the well, five winch trucks were backed into position at points equi-distant along the lateral line. The trucks picked up the manifold assembly and moved it into position over the well. The crew swung the line directly over the mouth of the well and guided the 14-foot 10-inch arm into the 12½-inch casing mouth of Allen 1. The 10-inch was connected to the 12½-inch with a split coupling of the stuffing box type. Gas is escaping through the manifold to the stand pipes where it is burning to prevent fire hazard and gas poisoning.

Through the use of five winch trucks the manifold assembly, weighing a little more than seven tons was quickly and efficiently lowered to position. Exhausts from the two trucks nearest the well were deadened with 30 foot coils of old fire hose to avoid any danger of truck engine exhaust sparks firing the gas.

Future Plans

Operators now plan to cement the holes of the old abandoned Frontier wells, which are around 2600 feet in depth, and to pump water through from Smith 12 and Allen 1-X to bridge the hole in the wild well and shut off the gas flow. For the past several weeks Ohio Oil Company has been pumping water through Smith 12; and Stock Oil Company through Allen 1-X. Twice the hole in Allen 1 has been bridged as the water caved shale into the hole, but rock pressure built up and the gas broke through again. While water was at first pumped through Smith 12 only, it began showing through Allen 1-X. If water through Smith 12 and Allen 1-X fails to bridge the hole, water will be pumped directly into hole of Allen 1 through the six inch gate welded directly above the 12½-inch surface casing to kill well. Allen 1-X at present is drilling at 1800 feet and will be carried to the Dakota series at 2600 feet, where it will stop and be used for pumping. Stock Oil Company plans after bringing Allen 1 under control, to drill Allen 1-X to the Madison for oil production.

The killing of the gas flow and conditioning of hole in Allen 1 presents a difficult problem. The well was drilling for the Madison lime formation where black oil is developed at around 4400 feet. At 3838 feet drill pipe froze on bottom. In order to loosen the drill stem the operator unloaded the mud from hole and ran oil. On January 19, gas began showing from old holes nearby Allen 1, as gas encountered in the Embar-Tensleep formations at around 3815 feet circulated out through the Dakota series. The well apparently had drilled through a fault. In order to prevent cratering of the well the operator had to open the blowout preventer on the 12½-inch surface string cemented at 1200 feet. The hole is not cased below the 12½-inch casing which is the accepted casing program at Garland.

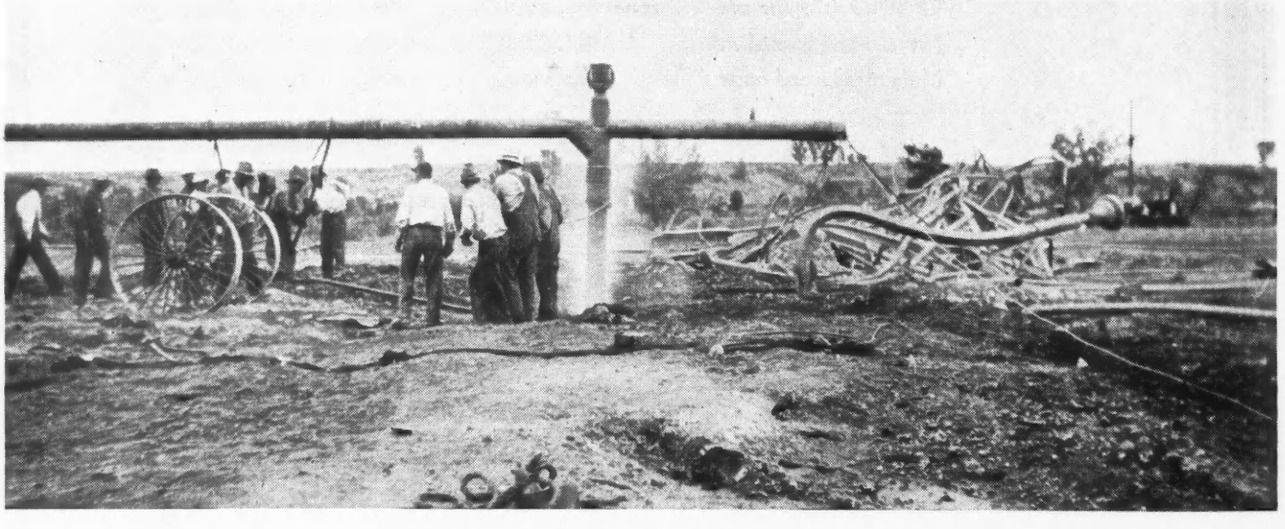
Mud was mixed and preparations were underway for pumping in and killing the gas flow when sub-zero weather with temperatures ranging from 20 to 36 degrees below zero set in, and thwarted all attempts to mud in the well. The freezing weather turned the derrick floor to a mound of frozen mud and ice.

When weather moderated the crew cleaned out the 25-foot mound of ice. In preparing to pump in mud through the drill stem it was discovered that cuttings blown from the well had severed the drill stem just below the Kelly and at a second point 1000 feet down stem. The section of drill pipe had dropped 400 feet in the hole. This section was successfully fished out.

The crew then started running 9⅝-inch casing headed for a point at 1500 feet. The 9⅝-inch pipe would not pass an obstruction at 500 feet and it was pulled. That night at 11 o'clock, Friday, February 27, the well fired. It is believed to have been ignited from a spark caused by a rock blown from the hole striking the steel derrick.

After killing the gas flow with water operators plan to run the 9⅝-inch casing to a point below crevices, mud in the well and fish out the 2800 feet condition hole and complete in the Madison for oil production. Gas is coming from the Embar-Tensleep at 3815 feet. This will be cased off with oil string run to just above the Madison formation.

The T-connection tieing the 10-inch lateral into the hole. The gate on top permits pumping directly into the well if necessary.



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Gas-Oil Ratio Reduced

IN A KANSAS FIELD BY INSTALLING BOTTOM-HOLE CHOKES IN EVERY WELL

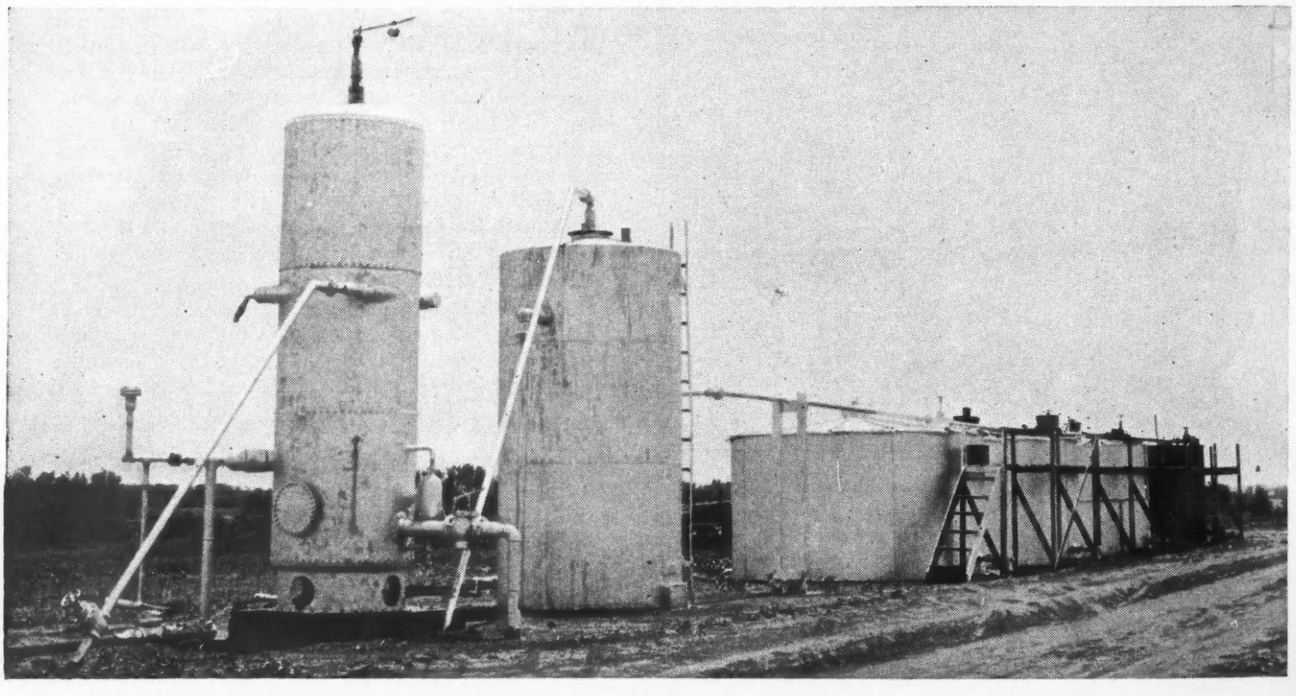
By BRAD MILLS, Associate Editor

A SHARP reduction in the average gas/oil ratio in the Peasel pool, Sumner County, Kansas, has been accomplished by the use of bottom-hole chokes in most of the flowing wells. All the four operators recently agreed to installation of bottom-hole chokes, following tests that indicated the advantage of some form of restriction near the bottom of the hole. The field has produced with a high gas/oil ratio since its discovery, and the decline in bottom-hole pressure caused the operating companies to seek a means of conserving the gas while producing the full allowable. The pressure at which the gas went out of solution permitted a much higher flow of gas than was justified, the volume being about three times the amount that would have been produced at the maximum rate of efficiency.

The Peasel pool is located about five miles north of Wellington, and although it was discovered in 1929 development has been conservative. The producing area is about one mile long and almost as wide. The oil is about 44 gravity and shows only a small percentage of water. The original bottom-hole pressure is believed to have been around 1050 pounds, but it is considerably below 1000 pounds at this time.

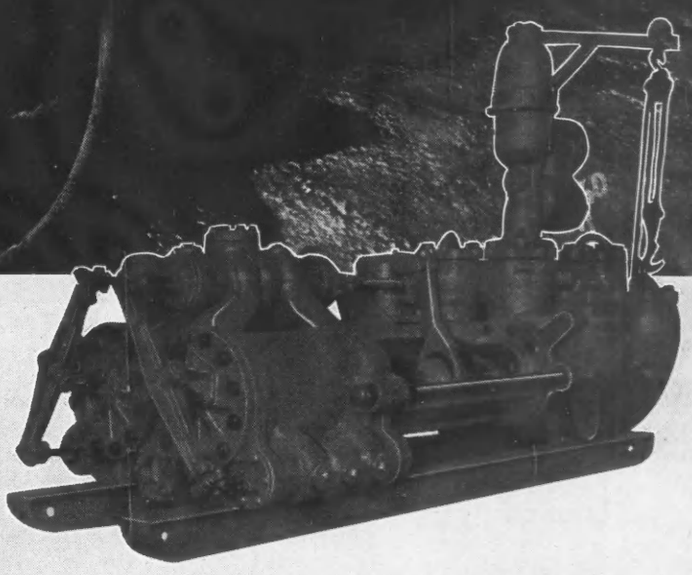
Production is obtained from the Mississippi lime and the producing zone shows a greater tendency toward uniformity than the average lime. The allowable has been about 15 percent of the potential, and the wells are producing from 40 to 190 barrels daily. There are now 33 producing wells in the field, of which 32 are flowing naturally. Initial production ranges from 200 to 1200 barrels daily. From 40 to 60 feet of formation is opened below the final shutoff, and it is not uncommon for some of the wells completed deepest in the lime to show a small amount of water. All wells are drilled to the top of the producing formation with rotary tools and completed with cable tools. The completion depth averages about 3375 feet.

The agreement of all operators to install bottom-hole chokes in flowing wells was the first unit operating plan of its kind ever inaugurated. The operators and the number of producing wells are: Slick, Pryor and Lockhart, six; Vickers Petroleum Company, two; Sinclair Prairie Oil Company, eight; and



The separator and "boot" tank arrangement were designed to handle gas under pressure as well as a small amount of water with the oil

Pump Efficiency with STEAM ECONOMY



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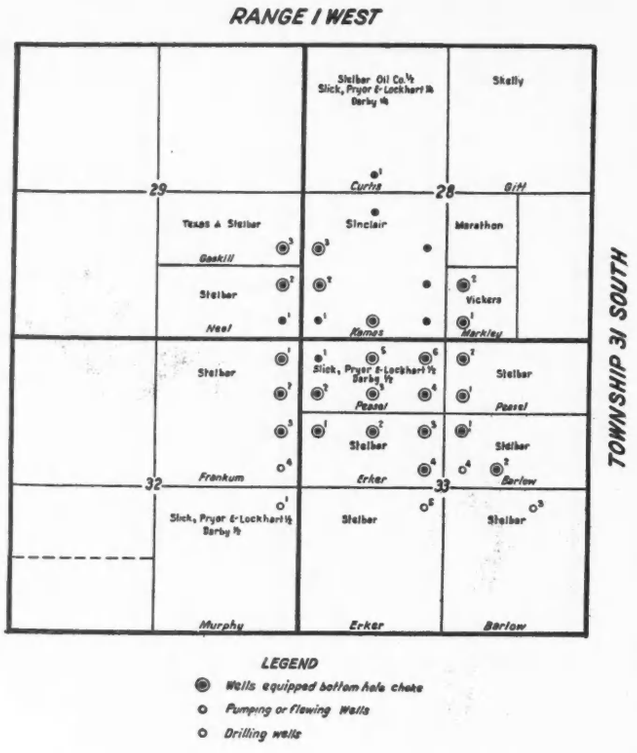

Map of the Peasel field, where operators are conserving the gas energy under a unit plan.

E. B. Shawber, 17. The high gas/oil ratio in the field was dissipating the flowing energy and reducing the bottom-hole pressure, despite a very conservative development program.

The high gas/oil ratio shown during the early development stages was attributed to gas that broke out of solution and came to the surface without bringing its full load of oil. Tests showed that the gas came out of solution at a pressure of about 800 pounds per square inch. Without a bottom-hole restriction or choke, the flowing pressure near the bottom of the hole was from 400 to 500 pounds. This permitted the gas to break out of solution readily and come to the surface as free gas. The gas and the oil left the formation together, but the breaking out of the gas caused the oil to slip back and gradually form a solid column in the tubing. After the well was produced for several days, the accumulated oil that left the formation and slipped back after a good start gave trouble and prevented a satisfactory flow in many of the weaker producers.

Use of bottom-hole chokes sharply restricts the flow near bottom and holds a high back pressure on the face of the producing formation. Below the choke the pressure is high enough to prevent the gas from breaking out of solution, a condition that forces the gas and oil through the choke or orifice at somewhere near their true formation ratio.

After passing through the bottom-hole orifice, the gas may break out of solution in the tubing, but no harm is done, since the flow of gas and oil through the bottom-hole choke continues at a uniform rate and ratio. Once in the column above the choke, the gas and oil can do nothing but flow to the surface at somewhere near the rate they passed through the choke. The principal objective is to maintain a low gas/oil ratio during the flow through the bottom hole orifice, since the velocity and pressure are great enough to insure forcing the oil from the tubing. The flowing pressure in the tubing above the choke is about 500 pounds, while the pressure below the choke is high enough to insure a high velocity through the orifice.

The estimated volume of gas in place in the formation per barrel of oil is 3000 cubic feet. Prior to installation of the bottom-hole orifices, wells were producing with a gas/oil ratio of 1/10,000. In a number of wells now flowing with bottom-hole chokes or orifices, the gas/oil ratio has been reduced to 1/3500, which is only 500 feet above the indicated gas in place in the formation per barrel of oil. Other wells are producing with a gas/oil ratio of 1/4000. No mixing valve or restriction is used at the surface the 500-pound flowing pressure above the bottom hole not requiring further control. This flowing pressure obviously diminishes rapidly near the surface, since a large part of the energy is spent in forcing the oil upward.

Some of the chokes are set as near bottom as possible, but in a few wells they have been set about 300 feet off bottom. The orifices vary from 1/16 to ¼ of an inch in diameter, with graduations being based on 1/64-inch adjustments. Operators have been able to strike within a few barrels of the allowable with the first choke installation, but it has been the custom to establish a slightly higher flow than required, since shutdowns and other difficulties may arise. The daily production usually declines for some time after the installation of bottom-hole chokes, however, and it now is the practice to use a slightly larger orifice than that required to give the exact allowable in the beginning. This settling of production with a fixed orifice is a natural adjustment and will not permanently affect the performance of the well.

Two-inch tubing is used in all flowing wells. One operator who has the necessary equipment is purchasing the bottom-hole chokes and running them in with his own crew. Other operators are having the manufacturer run and set the chokes at the desired levels. Blank chokes are purchased, and openings drilled in the plates to potentials and allowables.

Use of bottom-hole chokes in the Peasel pool has been recognized by the State of Kansas as a conservation measure. The 60-day potential re-tests have been eliminated, due to the sharp reduction in the field gas/oil ratio. In a few producing wells, production of water has been almost eliminated. The pressure held against the producing formation by the bottom hole restriction has reduced the tendency of the water to enter the hole. One well that was on the pump has been restored to a flowing status by use of a packer and bottom-hole choke. The well flowed, however, after the packer was run and before the choke was installed.

The operating companies believe that use of bottom-hole chokes will extend the flowing life of the field at least two years. The reduction in gas/oil ratio will give an accumulated saving of gas that will flow oil that otherwise would be pumped. A gas production of less than half that expected with the original flow equipment places the field in a very strong position.

The surface equipment at each flowing well is very simple. It consists essentially of a small gate valve, a pressure gauge and a check valve.

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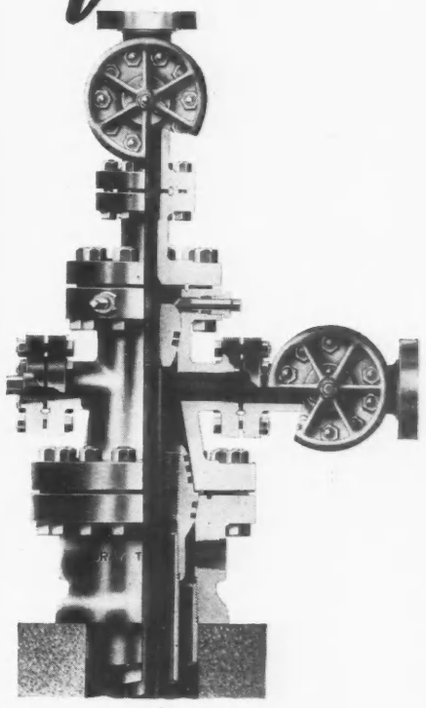

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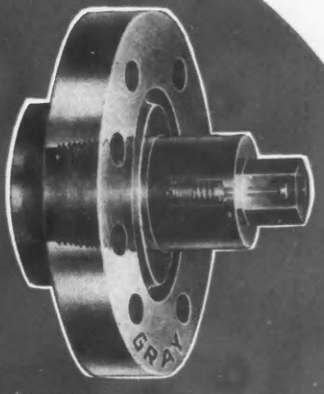

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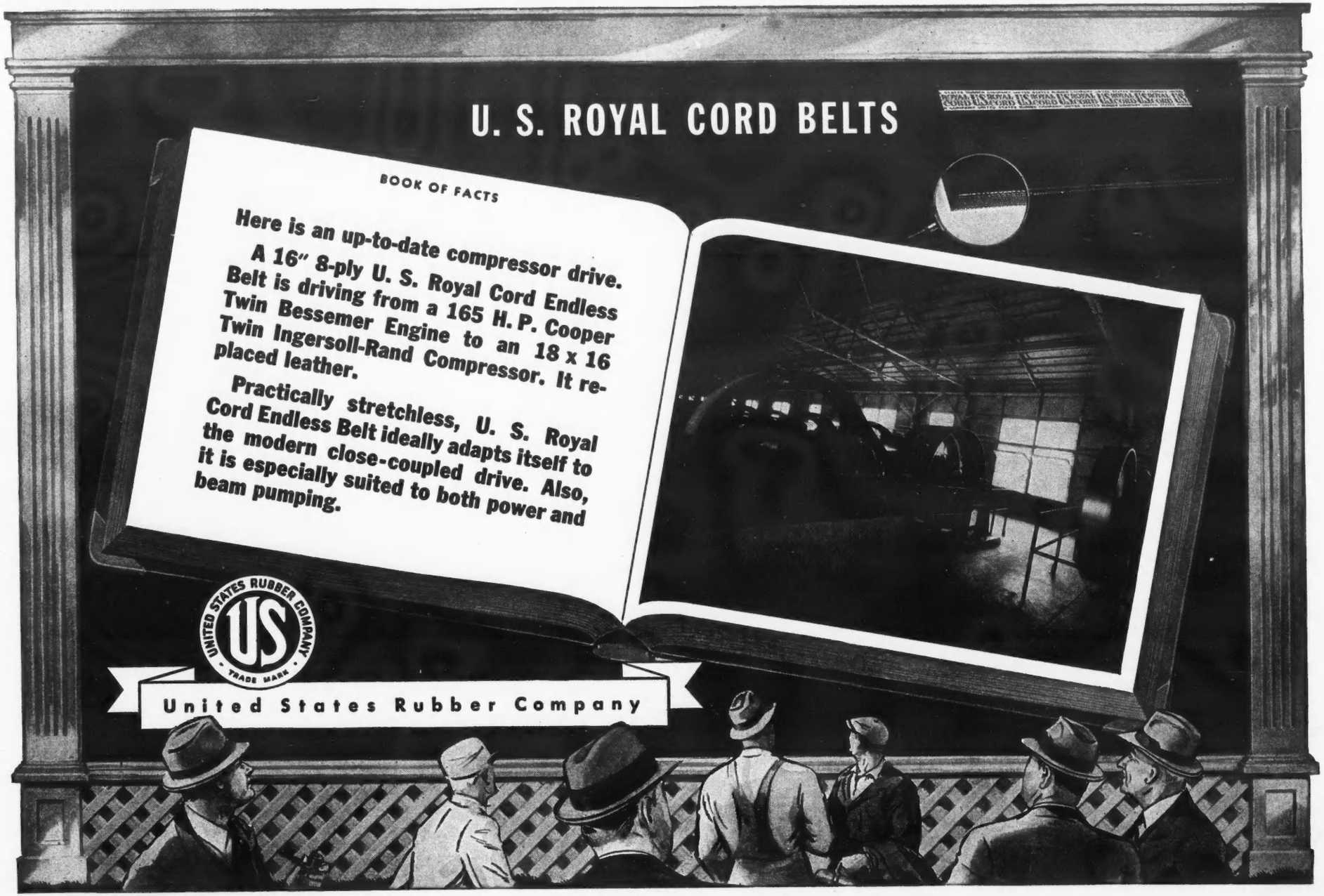
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Photo Micrography

VALUE OF SUCH LABORATORY WORK IS GAINING RECOGNITION IN INDUSTRY

By DENIS SNEIGR

IN three previous articles on photography and its place in the oil industry, no mention was made of photo-micrography. Because of the highly specialized nature of the work, requiring familiarity with the use of a microscope as well as a thorough knowledge of photographic principles, this subject will be dealt with separately.

While not as spectacular as aerial photography and not as obviously, and apparently not as directly, useful to the oil industry as photographic methods of well surveying, photo-micrography is as important —if not more so—than either of the other two.

For a great many years the microscope has lent valuable aid to science and to the scientific solution of industrial problems. Long ago business enlisted the aid of the scientist and his microscope. Photo-micrographs have figured in publications ranging from medical journals to newspaper advertisements showing the reader how the edge of a razor blade looks.

In relation to the oil industry, possibly the three outstanding and indispensable applications of the microscope and photo-micrographs are in the fields of metallurgy, petrology, and invertebrate paleontology.

In many cases, workers in these three sciences find that it is essential to employ some practical method of recording the images seen through the microscope. To this end there are two means at hand, drawing and photography. The advantages of the latter over the former are numerous. In its favor photography has speed, truthful rendition, and the accurate picturing of complicated and fine details.

In the early days of the microscope, all reproduction of microscopic images was done by laborous hand drawing. With the advent of photography, even with the daguerreotype, attempts were made to apply this new science to the microscope. But the difficulty and complication of the old photographic methods kept many microscope workers from attempting photo-micrography.

However, so much progress has been made in photography since the old tin-type days and the microscope has been so improved both optically and mechanically that now photography has superseded drawing completely in metallurgy and petrology. In paleontology, both drawings and photo-micrographs are used.

In its demands for special alloys to meet particular needs, the oil industry presents to the metallurgist more problems than any other industry, and for the successful solution of these problems, requiring continuous research, photo-micrography has proven itself an essential tool.

Metallography

The photographing of metals through the microscope, known as metallography, requires special equipment and the expert use of such equipment. As much care must be exercised in the preliminary preparations as in the actual photographing of a metal.

A perfectly smooth, flat surface is necessary before a metallograph can be made. To attain such a surface, the sample of metal must be ground and polished until it acquires a mirror-like surface. In the final polishing operation only the finest of abrasive mediums are used.

After the metal has been polished it is etched with either acid, a solution of acid and alcohol, or by an

Left: Metallograph of a piece of steel as it came from the mill. Right: same piece of steel after being heat treated. Note the finer grain. Both photographs were multiplied 100 times.

—Courtesy Hughes Tool Company

Camerina moodybranchenis, a marker of the Moody Branch horizon. Multiplied 17.8 times by Dr. Marcus A. Hanna.

electrolytic process depending on the kind and nature of the metal and the desired result. The etching is necessary so that some contrast between the various constituents of the metal may be seen.

Metallographs, some of which are magnified as much as 5000 times, reveal the results of tests to which a metal may have been subjected, and a study of the microscopic structure in some cases will reveal the physical properties of the metal.

One of the tests is based on the width of a microscopic scratch made on the face of the metal by the *micro-character*. In the use of the micro-character, a tiny diamond point scratches the face of the metal, and since the hard crystals are more resistant the scratch is narrow, but when the point passes over a softer crystal it sinks deeper into the metal and results in a wider scratch.

After applying the micro-character, the metal sample is photographed and the width of the scratch measured. By the use of a formula based on the micro-character, the hardness of the metal can be figured. Some idea as to the smallness of the scratch may be had when it is considered that in a metalograph magnified 1000 times the scratch may appear only about one half a millimeter wide.

Thus it is seen that metallography forms one of the most important applications of photo-micrography, for from the examination of welding methods to the manufacturing of better steels the metallurgist relies upon the microscope and photo-micrography to show the way.

Geological Study

Petrology, although never having been given a thorough test in salt dome field territory, has been used successfully for correlation purposes in the Mid-Continent and in California, and in the latter area it has been used to establish sub-zones in the foram zones.

This geological study is based on the limited range of mineral species, especially heavy minerals, which are those which will sink in bromoform. The usual method of preparing the rock sample is to crush it and then study the grains. This is known as mineral grain work.

More rarely the rocks are studied in thin sections. The making of thin sections entails a great deal of slow, tedious work and for this reason the grains rather than thin sections are more frequently used.

In the making of a thin section, a sample of the rock is ground and polished until one side is perfectly smooth. This smooth surface is then mounted on a glass slide and the other side of the rock ground down until the whole piece of rock is thin enough for light to pass through it easily.

Then by the use of the petrographic microscope and polarized light, the thin section may be examined or photographed.

In either mineral grain work or when working with thin sections, photo-micrographs will serve not only as a record but also will reveal something as to grain size, angularity, and to some extent mineral species may be recognized by the initiated. If cemented rocks are being examined, a general idea of the porosity may be obtained from thin sections.

Siliceous residues also are used to some extent in correlation work. In this case limestones and shales are digested in acid and the residue studied. Photomicrographs here prove useful as records.

But even though petrology has been established thoroughly as a correlating method in California and the Mid-Continent, it still remains to be given a complete test in salt dome field territory. In this respect there is a possibility that it might be used successfully to correlate those thick parts of the section where fossils are very few or entirely absent.

Paleontology Work

For the micro-paleontologist, some method of picturing for recording purposes the fossils with which he works is absolutely necessary. Thousands of different species have been described and recorded and new species are being found almost daily. For any individual to remember so vast a volume of information is an impossible task.

Thus it was that the paleontologist long ago turned to photography. However, the use of photomicrography in connection with micro-paleontology presents difficulties that are not found in metallography and petrology where the subjects to be photographed are flat surfaces; that is, they lie in one plane.

Microscope objectives are so constructed that they will focus exactly on only one plane at a time. Thus with an object that lies in several planes, such as a foram, only one plane at a time may be brought into focus. As the power of an objective is increased, the less depth of focus it will have.

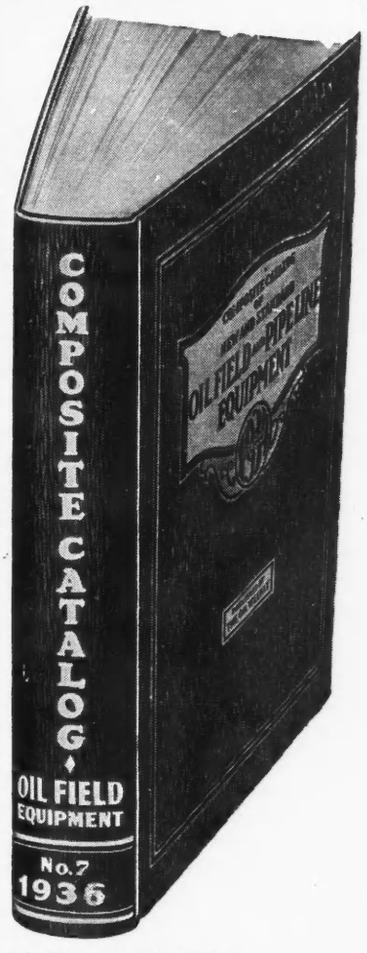
This difficulty is overcome by the use of a small photographic lens of short focal length. These objectives do not have as great a magnifying power as microscope lenses, but they do have a depth of focus and they cover a much wider field.

However, even with this equipment there still remain some forams which do not readily lend themselves to photography. For this reason many of the bulletins describing new fossils are illustrated partly with photo-micrographs and partly with drawings.

Some of the major companies are equipped to do their own photo-micrographic work in connection with the paleontological department. These companies have found it more economical and more efficient to do their own work of this kind rather than to have it done commercially.

But for the average company, a photo-micrographical laboratory is not considered absolutely essential at present. However, the value of such an accessory is recognized in the increased operating efficiency of the department and no doubt in the future it will be made a part of every well-equipped paleontological laboratory.

See our section in the



1936 COMPOSITE CATALOG

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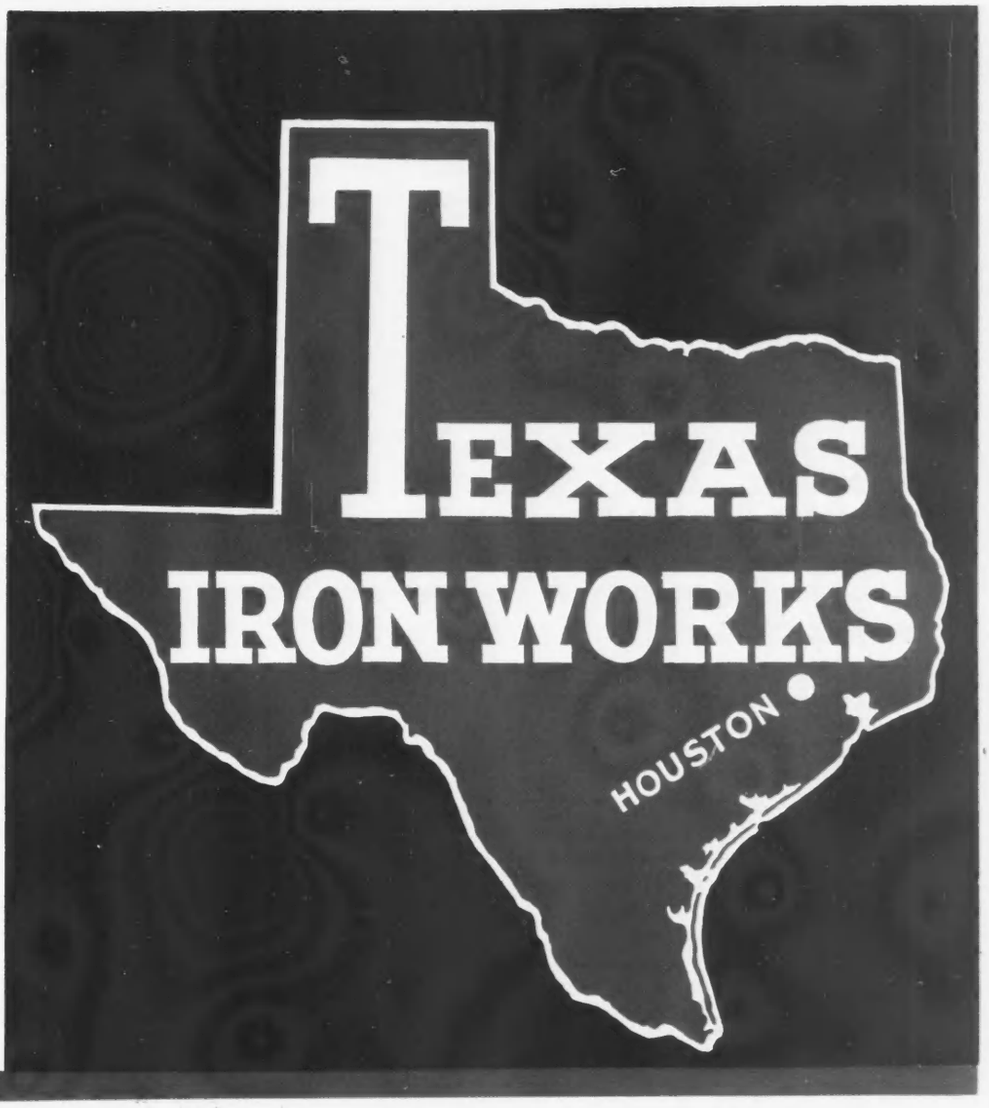

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Standard Tool

PRESSURE DRILLING USED IN SHALLOW MICHIGAN WELL

By NORMAN X. LYONS, Staff Writer

PRESSURE drilling of gas wells has been recently introduced into Michigan by H. L. Gentry, consulting engineer of Jackson, Michigan.

The first test on which the pressure method was used was a previously completed well, which had 12,000,000 cubic feet of open flow from 1249-1261 feet, producing from Michigan Stray sand and with a bottom-hole pressure of 545 pounds and 505 pounds at the well head. The well originally was completed on September 15, 1935, by Gordon Oil Company as Trecy 1, 12n-7w-10, Belvidere township, Montcalm County.

Equipment used included a portable machine for power and drilling purposes. Above the regular gate valve a 3-way control head was set with a special top face to take the 60-foot pressure column. The latter was made up of three joints of 14-inch casing with an oil saver at the top. On the front of the control head a lead off was set for taking well head pressure and critical flow gauges as the well was deepened. From the side a 4-inch joint of casing with valve was set in to "blow off" cuttings and clean the hole when desired without taking down the pressure column.

The well originally was drilled in with 5-inch tools and it was deepened without reducing. To drill, the drilling line was run over the mast and down through the pressure column and a 9-foot stuffing box in the column and then hooked to the drill stem. This was brought into the column with the latter then seated and bolted on the control head. Sufficient water for drilliing was put through a vavle set about nine feet from the bottom of the pressure column.

By opening of the control valve permitting gas to enter the column the pressure then could be equalized and the tools lowered into the hole. The 9-foot stuffing box was so made that inside the column it rode the tools down to the top of the control head, where it was seated and locked with set screws while drilling. Coming out of the hole was handled in the opposite manner. However, it was necessary to have the drilling line accurately flagged and required particular caution by the driller so that the stem would not come into the locked-stuffing box.

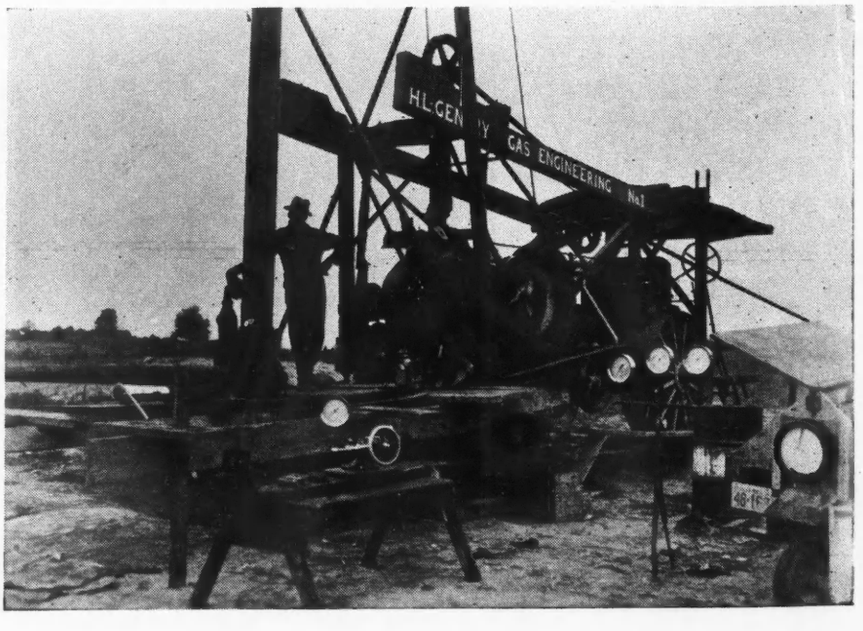
The well was deepened from 1261 feet to 1289 feet with an increase in open flow from 12 to 31 million feet.

The pressure drilling test has attracted considerable attention among Michigan contractors and operators. Gentry pointed out that the "Michigan stray sand is very treacherous and methods which have been in common practice have in some cases clogged and salted the producing formation."

The Stray sand is made up of quartz grains, irregular in both size and shape, and cemented together with various materials. The predominance of clay minerals in some parts of the formation reduces porosity to a minimum so that very small flows are obtained. In other parts of the formation, larger quantities of gas are found but the shales and silts are still evident even though higher porosities exist.

When a well is drilled in and high velocities occur through the sand these silts unquestionably bridge in the channels of flow and have a tendency to reduce the open flow. Salting of the sand face also has caused trouble.

The ability to drill into the sand without having gas flowing through it at the time, and control as guided by back pressure and porosity tests, will in Gentry's opinion bring pressure drilling into more general practice in Michigan.



Standard tool pressure drilling rig being used in Michigan

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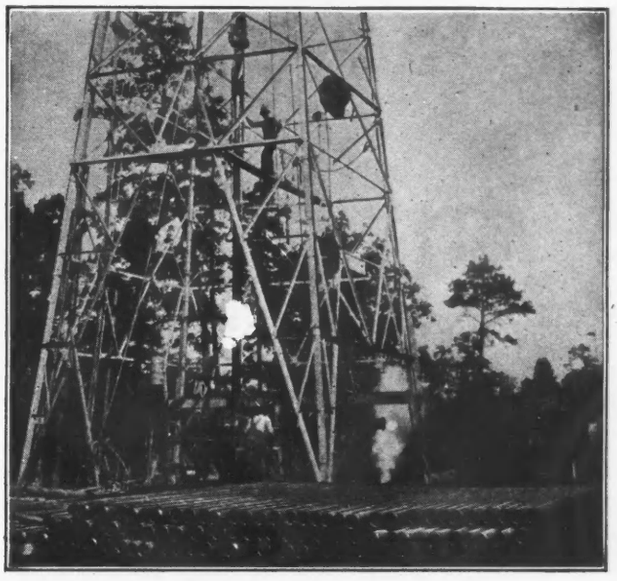

A Few Reports That Come In

Another Tool Pusher said "Am well pleased with it and it was a beautiful string."

●

Tool Pusher — "Never ran nicer Casing."

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RULE 6, of Division (1), of the Oil and Gas Conservation Rules and Regulations, prescribed by the Railroad Commission of Texas, issued May 15, 1934, headed, "Conservation Rules and Regulations of State-Wide Application in Texas," reads as follows:

"GAS-OIL RATIO AND DISPLACEMENT ALLOWANCE

Effective December 15, 1933, no well producing both oil and gas shall be permitted to produce gas in excess of two thousand (2,000) cubic feet per barrel of oil produced unless specially authorized by an order of the Railroad Commission to vary therefrom. The gas-oil ratio should be the relationship of the total volume of oil in barrels, produced from any specific well. Effective at once any well which by reason of its location or mode of completion is producing with a gas-oil ratio in excess of that authorized by the Railroad Commission shall be allowed to produce daily a total volume of gas equivalent to that of any other well producing from the same common source within the limits set by the Commission."

The above quoted Rule 6, concerns any producing field in Texas where the gas-oil ratio is in excess of two thousand (2,000) cubic feet per barrel of oil produced, and is applicable to all producing fields in the State of Texas unless special exemption is given by the Railroad Commission.

Gas-Oil Ratio

REGULATION IN PRORATED FIELDS IS OF IMPORTANCE

By E. O. BUCK, Consulting Engineer

REGULATION of gas production in oil fields is the result of many years of study by state regulatory bodies, producing companies and individuals. Many cut and try methods and scientific investigations to reduce gas production have resulted in the state-wide adoption of Rule 6, quoted in accompanying abstract. The exceptions of Rule 6, so far as they concern individual pools, have been made when proof is introduced before the Texas Railroad Commission that it is impossible or impractical to produce less than this volume of gas to obtain the oil.

In the Panhandle District, Division Two (2), Subheading III, Gas Conservation—Special Regulation; Paragraph "C", under Rule One (1), defines the term "Gas oil ratio" in this language: "By the term 'gas oil ratio' is meant volume of gas to oil and water."

Paragraph "D"—"For the purpose of calculating gas-oil ratio only, the term 'cubic foot of gas' is meant volume of gas expressed in cubic feet and computed at a base pressure of four (4) ounces per square inch above the average barometric pressure of 14.4 pounds per square inch, a standard base and flowing temperature of 60 degrees Fahrenheit; correction to be made for pressure according to Boyle's Law, and for specific gravity according to test made by the Balance Method."

Practically every known type of oil field from the Granite Ridge production found in the Panhandle, the Permian Lime production of West Texas to the blanket sand fields of East Texas, and the highly broken and faulted structures of the Gulf Coast salt dome areas are found in Texas. Naturally, this wide diversity of producing conditions and type reservoirs demand that the state-wide orders applicable to all producing fields must be lenient in gas-oil ratio regulation. Special exceptions to this regulation must be made when it is found that production of oil can not be obtained when the gas-oil ratio is limited to two thousand (2,000) cubic feet of gas per barrel of oil. Also, in many types of reservoirs gas-oil ratios of two thousand (2,000) cubic feet per barrel would be far in excess of that amount of gas necessary to conservatively produce the oil from the reservoir. In the latter type field, exceptions to Rule 6 called for less than two thousand (2,000) feet per barrel of oil produced. In fields where it is physically impossible to produce oil at ratios of two thousand (2,000) cubic feet per barrel, the regulatory bodies have amended Rule 6 to permit greater quantities of

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THE Taggert Valley Glass Works, Washington, Pa., is the scene of this example of Gilmer superiority. This heavy-duty multiple V-drive operates a large blower from a 150 h. p. motor. Subject to sudden shocks, it is far too tough for the average belt . . . but to Gilmer V-Belts it is "just another job." Here, as on thousands of other V-drives, Gilmer V-Belts are demonstrating their efficiency and economy.

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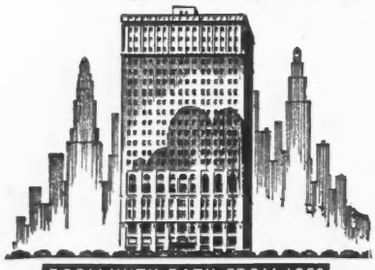

ROOM WITH BATH FROM $2.50

Robbin McGeorge, *Manager*
BALTIMORE AT ELEVENTH
KANSAS CITY, MO.

gas to be produced. In the Panhandle, and some Southwest Texas fields, gas-oil ratios of ten thousand to one are permitted where oil can not be obtained by lower ratios.

The study of gas-oil ratios and the importance of gas conservation in oil fields has long been known to the petroleum engineer and the producing companies. Many experiments on the mechanical completions of the wells and daily rates of flow have been conducted in attempts to reduce oil-gas ratios.

The importance of gas-oil ratio control and gas conservation has caused the industry to spend vast sums of money in experimental work. Some of these experiments have aided the curtailment of gas production in some fields and resulted in bitter failure when applied to other types of reservoir. The problem is so intricate that it is impossible to set a hard and fast rule that would be applicable to all types of reservoir and producing conditions.

The introduction and exhaustive use of bottom-hole pressure instruments and the recent development of a bottom-hole sampler that enables the engineer to obtain a sample of the crude under reservoir pressure and temperature conditions has contributed greatly to answering some of the heretofore unexplainable conditions met with in new producing fields.

The gas wasted by oil production in the State of Texas amounts to several billion cubic feet of gas daily, and although the industry realizes this excess wastage has reached an alarming proportion, the final answer for conserving this gas has not been found.

In many instances the location of the field is such that the gas has no commercial value, and its only use is the lifting of the oil from the reservoir to the surface of the ground. Naturally, gas conservation in fields of this type will result in a greater ultimate recovery of oil and the operators are primarily interested in its curtailment. In other fields where commercial gas pipe lines are serving the domestic and industrial markets the gas has a commercial value, and many operators overlook the utilization value of this gas as a lifting agency for the oil and place too much importance on the sale of the gas.

In many fields where gasoline plants are in operation, casinghead gas is processed to obtain natural gasoline. Too many operators find a ready sale for casinghead gas and are prone to overlook the commercial importance of the gas in lifting the oil from the reservoir.

The industry has made great progress in the past ten years in gas conservation, but the problem is far from being solved and only a continued strict regulation by the State Regulatory Bodies, and the extensive scientific investigation will give the answer to gas conservation.

Operators in reviewing past production practices bemoan the large amount of gas wasted by oil production, and although every effort is being spent to correct this condition, many fields in Texas today are producing large quantities of gas in excess of that amount necessary to produce the oil. This unquestionably will result in the loss of many millions of barrels of crude petroleum that could otherwise be produced, and increase the lifting cost of the oil to such a proportion that early abandonment of properties will result.

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The Cummins Engine Company pioneered the development of the high speed Diesel. During its 18 years experience in building nothing but Diesel engines, every conceivable Diesel service, within the limits of its horsepower, has been covered.

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Injection system is unique. Thru its use the desirable torque characteristics and operating economy of the true Diesel are combined with the quick starting and recognized flexibility of the gasoline engine.

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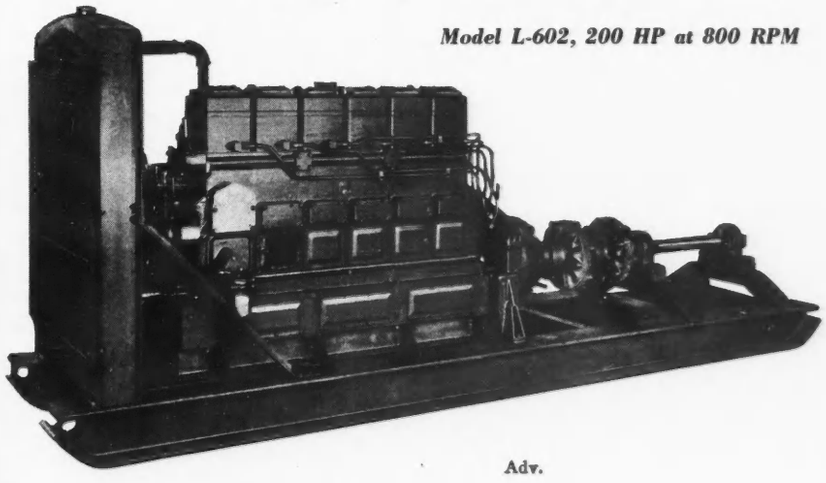
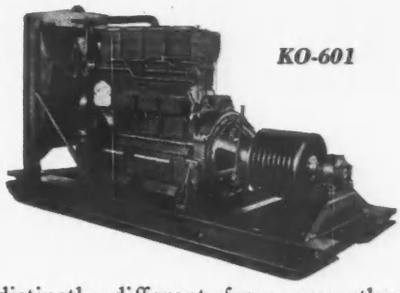


Model L-602, 200 HP at 800 RPM



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Cummins-Diesels are distributed in Texas, Oklahoma and Arkansas by the Mid-Continent Supply Company. Their Home Office is at Fort Worth, Texas. Mr. K. W. Davis and his corps of experienced oil men are always ready and willing to assist you in any power or operating problem. Consult them when buying any equipment or replacing obsolete or worn out machinery.

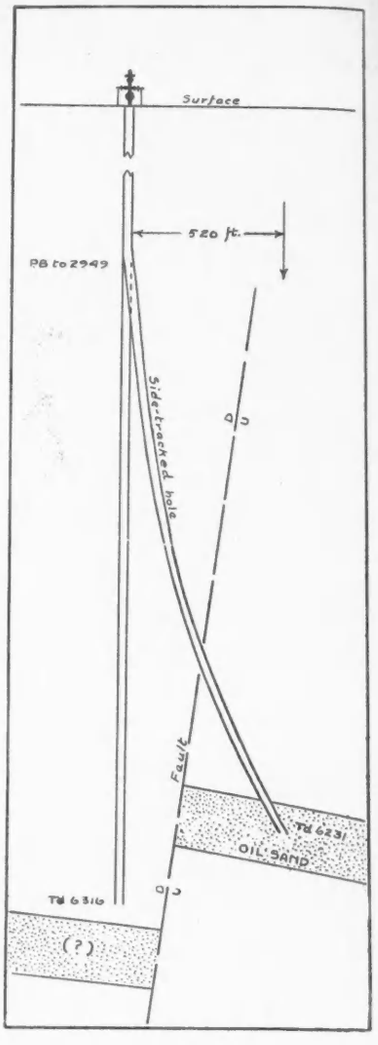
K. W. DAVIS, ***President Mid-Continent Supply Company, Distributors for Cummins-Diesels.***

Adv.

Deviated Drilling

PERMITS A DRY HOLE TO BE CONVERTED INTO OIL PRODUCER

By EARL S. POST, Staff Writer



Method used in cutting the fault so the well could be completed as a producer.

CONTROLLED directional drilling has been employed successfully to convert a dry hole into an oil producer without skidding the drilling equipment. This was achieved by Crown Central Petroleum Corporation in its Willett Wilson test in the Port Lavaca field of Calhoun County.

While it was a direct offset to production, the well was on the wrong side of a fault traversing the field. Its first completion failed to find the producing level, but after plugging back and drifting southward 520 feet it was recompleted as one of the best producers in the field.

Crown Central Petroleum Corporation owns a 26.7-acre tract offsetting to the east Halliburton Oil Producing Company's Burton lease. Wilson 1 was located approximately 720 feet due east of the latter company's Burton 3, which was one of the best initial producers in the Port Lavaca field.

The Wilson test started drilling August 27, 1935. It should have picked up the producing sand at 6215 feet, but failed to encounter any saturated sand to 6315 feet, which it reached on September 19, 1935. The hole was void completely of any production, either oil or gas, although it offset one of the best wells in the field. This well was drilled near the north end of lease.

On September 29 it was plugged back to 2949 feet and set a cement plug of 125 sacks. After allowing this cement plug to set for approximately five days, a surveying expert was called in, whipstocks set and the hole carried to a depth of 5282 feet, where, on October 12, 1935, four-inch drill pipe stuck. After four days using 200 sacks of special mud and 500 barrels of oil, the four-inch drill stem was loosened and came out of the hole. Drilling continued to a depth of 6150 feet, which depth was reached on November 4, 1935.

By that time, nine whipstocks had been set and in coming out of the hole with the survey machine, it stuck at approximately 3000 feet. The line broke and the crew spent from November 4 to December 7 fishing out the wire line and finally the survey machine.

After cleaning the hole, it was drilled to 6231 feet, having taken in approximately 18 feet of rich oil sand. A string of seven-inch casing was ready to run, but it was thought best not to try to set such large size pipe in this hole due to the deviation from vertical, consequently a new string of 5½-inch pipe was set December 17, 1935. When washed in, the well made 346 barrels on a ¼-inch choke, with casing pressure 1750 pounds and tubing pressure 1350 pounds. The well has been in approximately two months, and is making its allowable of 104 barrels per day on a 5/64-inch choke.

This hole required approximately four months to drill, but was a difficult one, but finally made as good a completion as any in the Port Lavaca field. The whipstocked hole finally ended up 520 feet south of the first straight hole. The reason that it was whipstocked to the south was that straight line between Halliburton Oil Producing Corporation's Burton 3 and the same company's Stanzel 1 apparently was on the producing side of the field. The survey was made to place the well 20 feet south of that straight line and apparently within the production not found in the first hole.

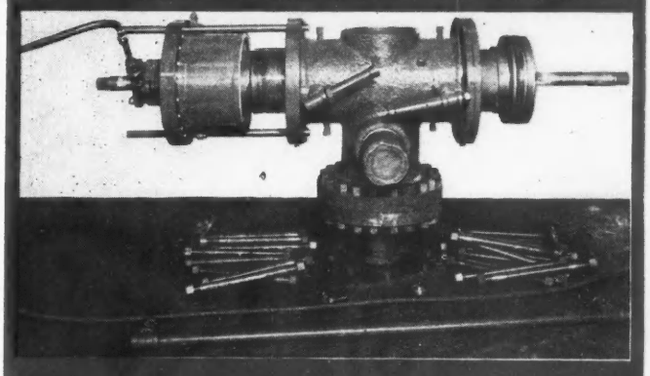
There was without a doubt a fault between the producing zone and the line of the first hole. As a result, the deflected hole cut the fault somewhere in its progress from 2949 feet to the total depth. The exact point that this fault was cut has not been definitely determined, according to owners of the well. It has been suggested that the fault lies within 50 to 75 feet from the first hole, although in drilling the sidetracked hole, the plans were made to be certain of coming within the producing zone should the fault lie as much as 300 feet away.

Of further interest is the conditions under which drilling had to be carried on. The area was covered the greater part of the time with water about six inches deep. Due to the fact that four months were required in the drilling of this test, it was necessary to set the equipment so that it would not be affected by such water.

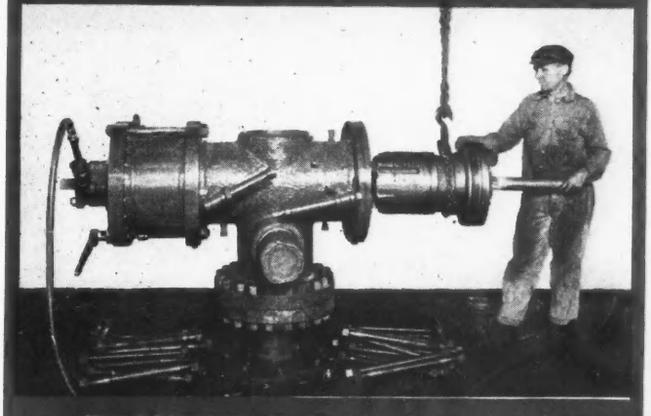
Acknowledgment is made to Walter Rawlins, of Crown Central Petroleum Corporation, who supervised the drilling of this well, and who greatly assisted in compiling the information for this article.

2 HOURS

work by four men using fluid pressure completes entire job of RAM CHANGING on a Cameron Type SDA Blowout Preventer



Here left-hand ram is being pushed into cylinder by fluid pressure; right hand ram is waiting to be pushed out by left-hand ram.



Here left-hand ram has been forced into normal operating position, and right-hand ram has been kicked out by left-hand ram.

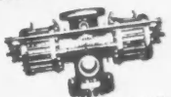
Using a new routine recently worked out by Cameron field service men, four men in two hours can change the rams in any Cameron Type SDA Pressure Operated Blowout Preventer. The new routine makes use of water or air pressure to remove the cylinders and rams, and to replace the rams in the preventer body. Ram-changing time is cut from six hours to two hours, or less—without speeding men up. Ninety per cent of the work is done by water or air pressure.

Now you can add high-speed ram-changing to the many other exclusive advantages afforded only by the Cameron Type SDA Blowout Preventer, including instant and positive opening and closing by fluid pressure; freedom to rotate and raise and lower drill pipe through closed rams while circulating to kill a kicking well; self-feeding ram packing which automatically feeds out additional packing, if necessary, to maintain a pressure-tight seal; and 28 other features which, combined, make the Cameron Type SDA the finest and safest blowout preventer ever built.

An interesting step-by-step instruction book on changing Type SDA Preventer rams by the new routine has been prepared, and a copy or copies will gladly be mailed to owners of Type SDA Preventers, or to others interested. The book is fully illustrated. Write today for your copy.

FREE THIS STEP BY STEP INSTRUCTION BOOK

Send for a copy or copies of this step-by-step instruction book, fully illustrated, which tells exactly how to proceed in changing Cameron Type SDA Blowout Preventer Rams in not more than two hours, using either water or air pressure.



INSTRUCTIONS FOR CHANGING CAMERON TYPE SDA BLOWOUT PREVENTER RAMS

CAMERON IRON WORKS, Inc.

711 MILBY ST. HOUSTON, TEXAS

EXPORT OFFICE: 74 Trinity Place, New York, N. Y.

MIDLAND: W. P. (Red) KNIGHT BEAUMONT: C. A. Muncey

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Try Humble Thredkote on *your* job. You can secure it from any Humble Bulk Station, or write direct to

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Houston, Texas

Markets Are Firm

PRICES STEADY UNDER BIG DEMAND, STRICT CONTROL

THE market situation has continued favorable. Gasoline demand is strong, and in some areas retail prices have been advanced, although tank car prices have remained unchanged the past several weeks. Although there has been some hope that refinery prices would work upward a point or two, actual efforts to obtain higher prices so far have been limited to comparatively few instances. Mid-Continent tank car prices at prevailing levels are from one eighth to one quarter cent under the year's highs, reached this spring.

The markets for kerosene and light fuel oils have continued listless, with little interest displayed at prevailing prices, although there have been some inquiries for shipment in August and September. In the Oklahoma market kerosene prices eased off a little further last week, as the top price for the 41-43 water white grade dropped a point to 3⅞ cents, while the 42-44 water white grade, similarly, had a new maximum of 4⅛ cents; the minimum quotations on the two grades remaining unchanged, respectively, at 3¾ and 4 cents.

July Allowables Encouraging

Despite the absence last week of any noteworthy price gains, the markets were distinctly firm, apparently because of the various favorable circumstances that prevail. An especially favorable factor is the prospect that crude production will be rigidly held down during July. Oklahoma, Kansas and Texas, together accounting for a large part of the Mid-Continent production, propose to stay within or under the Bureau of Mines recommendations during the month. Consequently, it appears that the nation's output in July will be held fairly close to the federal estimate of demand.

In view of the strict allowables that have been adopted, the crude market likely will be pleasingly firm at least until the end of July. However, the new allowables have not yet exerted their influence, and the markets still are reflecting the old allowables, particularly in Texas, where the Bureau of Mines recommendation was exceeded in the first three weeks of June.

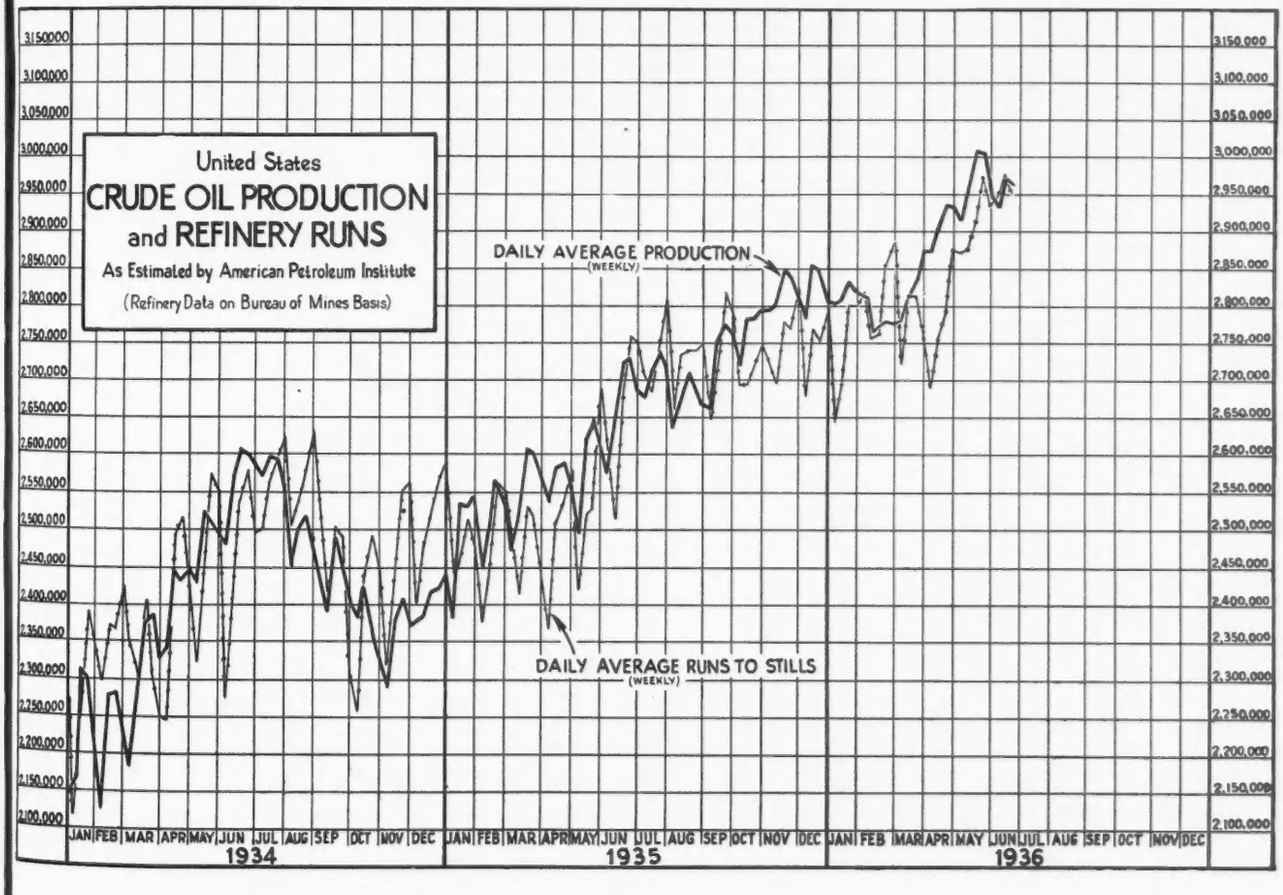
South Texas Markets Congested

The Southwest Texas district, in particular, has felt the ill effects of excessive crude output. In that area the markets were congested to such extent in June as to necessitate sharp contraction of drilling operations, although offsetting has kept the district comparatively active.

In the Zoboroski and South Darst Creek fields, Guadalupe County, southern Texas, where production aggregates about 600 barrels daily, the market situation has been very acute, with considerable oil being hauled some 20 miles to Luling, to be turned over to Shell Pipe Line Company. Facilities to the field are crowded.

Amerada Petroleum Corporation is reported still trying to find adequate outlet for its Frio County oil. Some of it is being taken on spot shipments and on small contract, but the majority is going into the company's large storage facilities.

In the Duval and Webb County sections of South Texas, drilling has been



greatly curtailed, and some companies have stopped drilling completely. Allowables have been cut to as low as 25 cents a barrel in many cases, due to inadequate pipe line facilities and demand. One independent company, headed by Al Buchanan, has only one rig running in the Loma Novia field, instead of about a dozen as in the past. Santa Clara Oil Company cut its drilling activity in the Duval County area from about eight rigs to none. Other companies have made similar drastic reductions in field work. In both the Corpus Christi and Duval County areas, full allowables are not being run from all leases.

Those conditions in southern Texas make it evident that the Texas Railroad Commission was entirely justified when it lowered the state's allowable about 56,000 barrels daily, as of June 20. At about this time last year the South Texas area similarly was producing an excess of crude, and the surplus resulted in a small reduction of the crude prices in the district.

Gasoline Market Firm

Evidence of a comparatively firm gasoline market was given last week when Standard Oil Company (Indiana) advanced tank wagon and service station prices of all three grades of gasoline one-half cent a gallon in the Detroit area.

In the meantime, tank car prices at Mid-Continent refineries were mostly unchanged. Prices on U. S. motor gasoline f.o.b. Oklahoma refineries continued as follows: 62 octane and below 4¾ to 5 cents, 63 to 67 octane 5⅜ to 5⅝ cents, and 68 to 70 octane 6 to 6⅛ cents. Demand was strong in anticipation of heavy consumption during the Independence Day holiday period. In some cases, higher prices than these were asked.

In East Texas the fully tendered third grade U. S. motor gasoline last week continued priced at 4⅝ to 4¾ cents, although lower prices prevailed as usual on material moving under only state tenders or in trucks without the required clearance papers.

East Texas Tank Car Shipments

Week Ending June 21, 1936

PRODUCTS	No. Cars	Estimated Gallons
Gasoline	510	4,145,037
Casinghead Gasoline	272	2,277,253
Fuel Oil	170	1,609,833
Distillate	44	352,345
Topped Crude	36	319,235
Gas Oil	33	267,162
Kerosene	18	140,645
Naphtha	15	121,481
Residuum	9	74,945
Total	1,108	9,307,936
Total Previous Week	1,116	9,381,072
Interstate	416	.....
Coastwise	390	.....
Intrastate	302	.....
Total	1,108	.....

GASOLINE PLANTS

Midland, Texas.—Smith Bros. Refining Company, Inc., Tulsa, is preparing to erect a 50,000,000 cubic foot daily capacity well-pressure absorption type of natural gasoline plant in the Sayre field, Winkler County. The company recently acquired the American Natural Gasoline Company's 150,000,000 cubic foot daily capacity plant near Shamrock, Wheeler County, Texas Panhandle, and will make use of this equipment in the Winkler County project. The latter plant was forced to discontinue through inability to market its residue gas in accordance with state gas regulations.

Magnolia Petroleum Company is installing an absorption type of natural gasoline plant to be located on its J. B. Walton 8000-acre leasehold in the heart of the Sayre field. It is scheduled to produce 16,000 gallons of gasoline daily, and will be located in Section 1, Block B-26, PSL Survey, while the above plant will be in an adjoining section to the west.

Standard Oil Company of Texas, manufacturing unit of Standard Oil Company of California, is due to start construction work shortly on a 20,000,000 cubic foot capacity absorption type of natural gasoline plant in the Grand Falls district, Ward County. It will be located on The California Company's B. D. Durgin lease, Section 15, Block 35, H&TC Ry. Survey.

ELK HILLS PRICE

STANDARD OIL COMPANY OF CALIFORNIA announced effective 7 a.m., June 22, 1936, an advance in the price it offers for crude oil in the Elk Hills field, ranging from 5 cents per barrel on the lowest grade to 34 cents per barrel on the highest grade. This action follows certification by the Central Committee of California Oil Producers that production from the Elk Hills field has now been reduced to the allotment set up by the committee. Similar advances have previously been made in 25 other fields. These advances are now effective in all fields, where the company purchases crude oil, except Alamitos Heights, Dominguez and the Lakeview area of Midway-Sunset.

MICHIGAN ADVANCE

MICHIGAN crude oil price was boosted 10 cents a barrel, effective June 15, by Simrall Pipe Line Corporation and met by Pure Transportation Company, major carrier in the state, as well as by other smaller buyers.

The new price is $1.42 for Porter, Greendale, Leaton, Crystal and similar grades and $1.26 for Ogemaw and similar grades.

The increase was attributed to the current off balance of refinery demand with the state's production. Michigan's 14 independent refineries have a total daily capacity of 40,000 barrels exclusive of the approximately 25,000 barrels being moved daily to the Toledo, Ohio, refining area.

Summary of Wells Completed in the United States Week Ending June 27, 1936

	Completions	Oil Wells	Gas Wells	Failures	Initial Production	Total Completions 1936	Total Completions this date 1935
Alabama	....	....	....	....	.....	2	3
Arkansas	....	....	....	....	.....	42	85
California	14	11	....	3	5,355	515	399
Colorado	1	1	....	....	1,000	6	6
Illinois	....	....	....	....	.....	4	9
Indiana	11	4	5	2	135	121	92
Kansas	44	35	2	7	28,004	761	685
Kentucky	8	7	....	1	393	125	73
Louisiana	24	14	3	7	8,531	519	374
Michigan	19	6	7	6	770	373	219
Mississippi	2	....	....	2	.....	4	12
Montana	3	3	....	....	325	62	56
New Mexico	11	11	....	....	25,194	268	138
New York	....	....	....	....	.....	....	....
Ohio	34	4	18	12	46	910	696
Oklahoma	93	64	2	27	118,277	1,389	1,154
Pennsylvania	....	....	....	....	.....	....	70
Texas	281	214	9	58	311,718	6,049	5,950
Utah	....	....	....	....	.....	....	....
West Virginia	10	....	7	3	.....	346	240
Wyoming	4	4	....	....	8,980	28	28
Total this week	559	379	53	128	508,728	11,524	10,290
Total last week	478	314	59	105	487,820	10,965	....
Total this year	11,524	7,665	1,116	2,758	10,853,163	....	....

Comparison of Permits Granted for New Wells

STATE	Week Ending June 27	Total this Mo.	Total this Year	Total this Date Last Year	1935 Year Total
Arkansas	2	5	51	16	70
California	22	89	463	273	925
Louisiana	27	93	611	393	846
Kansas	32	121	890	481	1,204
Michigan	19	65	347	238	749
Oklahoma	47	215	1,156	1,074	2,311
Texas	395	1,414	7,283	5,251	10,800
Total	544	2,002	10,801	7,726	16,964

PRODUCTION LOWER

Crude oil yield declines in most leading states

UNITED STATES crude oil production averaged 2,934,675 barrels daily during the past week, ended June 27. That was 17,500 barrels a day less than in the previous week, and 96,375 barrels a day more than the Bureau of Mines recommendation.

The decrease from the previous week's production rate was the result of declines in Texas, Kansas, Louisiana, California, and New Mexico, or most of the leading producing states; only Oklahoma among the leaders having registered an increase.

This lower output partially reflected the sharp reduction of the Texas allowable for the latter part of June, and it also reflected the usual downward trends of production in the latter part of the month in California.

The Texas crude production last week averaged 1,137,500 barrels daily, or 26,050 barrels a day less than in the previous week, and it was within about 12,000 barrels of the Bureau of Mines allocation to the state for June. However, last week's figures did not reflect a whole week's production under the new allowables, and a further decrease of a similar amount is in prospect for this week. The new Texas allowables provided for a 56,000-barrel reduction of the state's output.

Oklahoma last week averaged 555,325 barrels daily, which was 8975 barrels a day more than in the previous week and 2825 barrels per day more than the Bureau of Mines allocation.

Kansas' output averaged 146,000 barrels per day, and was therefore 3175 barrels a day lower than in the previous week and 7100 barrels per day under the federal allocation.

California showed an 8000-barrel decline in averaging 570,000 barrels per day, but was still 34,500 barrels above its quota.

Louisiana production was down 50 barrels at 222,675 barrels daily, and it was 46,975 barrels above the Bureau of Mines recommendation.

New Mexico last week averaged 73,000 barrels daily, or 100 barrels a day less than in the previous week, and 4700 barrels a day more than the federal allocation.

JONES REFINERY

Stamford, Texas.—W. H. Peckham, Wichita Falls producer, is erecting a 500-barrel daily capacity crude skimming plant at Stamford to operate on controlled and purchased oil to be delivered by tank trucks from the Leuders and Hawley fields, Jones County. Operators in the above prolific high gravity oil areas have not been successful in attracting a direct trunk line connection, and approximately 1000 barrels of the current production is without a steady market outlet, which is confined to tank truck sales to independent refineries in the district.

United States Crude Oil Production

Estimates Compiled by THE OIL WEEKLY

DISTRICT OR STATE	Bureau of Mines Recommendation (Daily in June)	ACTUAL PRODUCTION: BARRELS DAILY FOR WEEK ENDING June 27	June 20
TEXAS—			
Texas Panhandle	.....	61,500	60,800
North Texas	.....	58,400	58,700
West Central Texas	.....	25,100	25,300
West Texas	.....	174,200	178,900
East Central Texas	.....	53,300	53,100
*East Texas Field	.....	436,100	438,900
†South Texas	.....	82,400	86,400
†Texas Gulf Coast	.....	246,500	249,400
*Total Texas	1,125,700	1,137,500	1,151,500
OKLAHOMA—			
Oklahoma City	.....	137,775	125,725
Seminole Area	.....	137,675	144,975
Tatums	.....	3,175	3,325
Lucien	.....	12,750	12,800
Fitts	.....	48,625	55,700
Edmond	.....	11,800	11,975
Others	.....	203,525	191,850
Total Oklahoma	552,500	555,325	546,350
KANSAS—			
Ritz-Canton	.....	6,175	6,150
Voshell	.....	2,850	2,800
Nikkel-Hollow	.....	3,825	3,800
Sedgwick	.....	5,250	5,250
Burrton-Haury	.....	11,750	11,675
Lorraine	.....	6,800	6,625
Oxford	.....	6,025	6,100
Others	.....	103,325	106,775
Total Kansas	153,100	146,000	149,175
LOUISIANA—			
North Louisiana	.....	76,875	76,925
Louisiana Gulf Coast	.....	145,800	145,800
Total Louisiana	175,700	222,675	222,725
ARKANSAS	31,800	29,175	29,525
CALIFORNIA—			
Long Beach	.....	67,300	68,000
Santa Fe Springs	.....	43,500	43,500
Huntington Beach	.....	36,500	36,500
Dominguez	.....	24,500	27,000
Inglewood	.....	12,000	11,500
Ventura Avenue	.....	33,500	32,500
Seal Beach	.....	7,500	7,000
Midway-Sunset	.....	61,200	63,000
Elwood	.....	12,000	12,000
Kettleman Hills	.....	77,000	77,000
Mountain View	.....	26,500	28,000
Playa del Rey	.....	13,200	13,500
Others	.....	135,300	158,500
Total California	535,500	570,000	578,000
MOUNTAIN STATES—			
Wyoming	37,800	36,800	37,400
Montana	13,000	16,900	16,800
Colorado	4,700	4,700	4,600
Total Rocky Mountain States	55,500	58,400	58,800
NEW MEXICO	68,300	73,000	73,100
EASTERN STATES	103,200	110,500	110,200
MICHIGAN	37,000	32,100	32,800
*Total United States	2,838,300	2,934,675	2,952,175
*Surreptitiously produced oil in East Texas, not included in above figures, estimated at.	.....	15,000	15,000
Grand Total, including surreptitious production	.....	2,949,675	2,967,175

† Coastal Section of South Texas is included with Texas Gulf Coast.

Crude Runs to Stills, Stocks of Finished and Unfinished Gasoline and Gas and Fuel Oil, and Cracked Gasoline Production, Week Ended June 20, 1936

(Figures in thousands of barrels of 42 gallons each, as reported to American Petroleum Institute)

DISTRICT	Daily Refining Capacity			Crude Runs to Stills		Stocks of Finished and Unfinished Gasoline				Stocks of Gas and Fuel Oil			Daily Charging Capacity of Cracking Units			Cracked Gasoline Production
		Reporting				Finished		Unfinished in Naphtha Distillates	Total Finished and Unfinished					Reporting		
	Potential Rate	Total	%	Daily Average	% Operated	At Refineries	Terms. Trans. Pipe Lines			Gas, Oil & Distillate	Residual Fuel Oil	Total	Potential Rate	Total	%	Daily Avera
East Coast	612	612	100.0	509	83.2	6,915	11,290	930	19,135	4,379	5,252	9,631	534	534	100.0	103
Appalachian	154	146	94.8	106	72.6	1,278	1,052	283	2,613	285	188	473	79	78	98.7	23
Ind., Ill., Ky	462	444	96.1	430	96.8	6,378	2,730	777	9,885	1,987	2,087	4,074	349	348	99.7	135
Okla., Kans., Mo	453	384	84.8	293	76.3	4,140	2,249	602	6,991	733	2,576	3,309	256	228	89.1	68
Inland Texas	330	160	48.5	111	69.4	1,143	128	197	1,468	334	1,447	1,781	148	105	70.9	30
Texas Gulf	680	658	96.8	576	87.5	5,711	244	2,052	8,007	3,904	3,512	7,416	399	393	98.5	148
Louisiana Gulf	169	163	96.4	129	79.1	707	469	251	1,427	1,148	996	2,144	77	74	96.1	24
North La.,—Ark.	80	72	90.0	36	50.0	213	72	115	400	64	349	413	46	44	95.7	9
Rocky Mountain	97	60	61.9	48	80.0	1,345	.....	97	1,442	147	618	765	46	39	84.8	13
California	852	789	92.6	519	65.8	9,410	2,465	1,239	13,114	.....	.....	71,781	280	280	100.0	67
Reported	.....	3,488	89.7	2,757	79.0	37,240	20,699	6,543	64,482	.....	.....	101,787	.....	2,123	95.9	620
Estimated Unreported	.....	401	....	193	....	3,033	1,425	274	4,732	.....	.....	2,941	.....	91	....	40
*Estimated Total U.S. June 20, 1936	3,889	3,889	....	2,950	....	40,273	22,124	6,817	69,214	.....	.....	104,728	2,214	2,214	....	660
*Estimated Total U.S. June 13, 1936	3,869	3,869	....	2,975	....	41,280	22,543	6,845	70,668	.....	.....	103,999	2,214	2,214	....	660
U.S.B.ofM., June 1935	.....	....	....	2,724	....	†32,499	†20,642	†6,366	†59,507	.....	.....	†103,674	.....	....	....	586

*Bureau of Mines basis currently estimated. †As of June 30, 1935.

LABOR TROUBLES

Workers strike in two Venezuelan oil fields

Oil field workers in Quiriquire and Caripito fields, State of Monagas, Venezuela, are on a strike and all work in these fields, controlled largely by subsidiaries of Standard Oil Company of New Jersey, has been suspended, according to word from Maracaibo.

Confidence expressed a few months ago by major operators that the post-election political unrest in Venezuela would soon quiet down is fading in some quarters, and a certain amount of anxiety is being felt. Notwithstanding this, however, operations and production there up to the close of May had not been seriously hampered as production of Creole Petroleum Corporation and Lago Petroleum Corporation, the subsidiaries referred to, produced an aggregate of 33,172,398 barrels during the five-month period. This represents a substantial gain over the 29,224,737 barrels produced in the corresponding period of 1935.

Moreover, President Contreras of Venezuela has indicated he will not allow the labor troubles and political upheavals to destroy an industry responsible for about 50 percent of the nation's income. "If the government's desire to follow a normal political course is interpreted as indifference to take action, then the government will be forced to demonstrate that it is aware of its mission to conserve peace, notwithstanding the existence of destructive elements," President Contreras is quoted as saying.

In this connection the president is known to have dispatched gunboats to Maracaibo to maintain order in Lagunillas field during a recent general strike supposed to have been called for political reasons.

Venezuela's proposed legislation now pending before congress there has been termed drastic and discriminatory as regards the oil business. The legislation, being sponsored by labor unions, "syndicados", would, if passed, raise production costs to a prohibitive level, it is said. It is felt Contreras will not support the syndicado-sponsored legislation.

On the other hand, possibly as a counter move, the government itself is sponsoring legislative proposals for formulation of a law having as its objective the regulation of labor unions and the extermination, or suppression, of communistic activities.

Companies which will bear the brunt of the proposed legislation, or benefit most from it, as the case may be, are Royal Dutch Shell, Standard Oil Company of New Jersey and Gulf Oil Corporation, as these control most of the production in Venezuela. Inasmuch as the nation ranks third among producing nations of the world, being surpassed only by the United States and by Russia, crippling oil activities there would have an important influence on the world oil market.

Alcohol can be produced cheaply from gases omitted in refining crude oil, and can be made non-intoxicating.

REFINERY SUBSIDY

Venezuela may help erect two plants

Indications that the Republic of Venezuela will partially or wholly subsidize erection of two refineries, one in the eastern part of the country and the other in the western part, are seen in a letter of May 26 written by Dr. Nestor Luis Perez, minister of works.

The minister's letter reads in part as follows:

"The national executive, having taken personal interest in the necessity of establishing national refineries in the nation, propositions will be considered with the greatest attention that, within the law, are presented, through the ministry of public works, for establishing two national petroleum refineries, one in the east and the other in the west of the republic.

"Interested persons should include in their applications all data referring to capital of the enterprise, capacity of production of the plant, its geographical situation, period necessary for beginning of the work, cost of installation, communication, transportation, and any other technical and statistical data necessary to permit the national executive to form an idea as to the possibilities of the project and its economic advantages. To the project which it considers most advantageous, the national government will lend its cooperation and necessary facilities."

CRUDE OIL PRICE QUOTATIONS

(Figures Represent Basic or Flat Prices—Revised to June 26, 1936)

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Oklahoma-Kansas	28—$0.94	2¢	40—$1.18	1- 9-36
N. and N.-C. Texas	28— .84	2¢	40— 1.08	1- 9-36
Texas Panhandle				
Gray County	34— .86	2¢	40— .98	1- 9-36
Carson-Hutchinson	34— .81	2¢	40— .93	1- 9-36
West Texas				
Ector, Pecos, W'kler Crane, Upton, Howard and Glasscock	29— .76	2¢	36— 90	1-14-36
West Central Texas	28— .84	2¢	40— 1.08	1- 9-36
East Central Texas	28— .91	2¢	40— 1.15	1- 9-36
East Texas	*1.15			1- 9-36
Talco	* .60			4-15-36
Texas Gulf Coast				
Anahuac-Dickinson	30— 1.04	2¢	40— 1.24	1- 9-36
Conroe	35— 1.24	2¢	40— 1.34	1- 9-36
Tomball	*1.30			1- 9-36
Cleveland	*1.00			1-11-34
†Goose Creek, Hull Liberty, Orange, Pierce Junction, Moss Bluff, Raccoon Bend, Sour Lake, Spindletop, Sugarland, West Columbia, Humble, Rabbs Ridge	Below 17— .88	2¢	34— 1.22	1- 9-36
South and S. W. Texas	Below			
Refugio (Light)	17— .88	2¢	34— 1.22	1- 9-36
Refugio (Heavy)	*.90			1- 9-36
Saxet	*.90			1- 9-36
Mirando	*.85			1- 9-36
Pettus	*1.25			1- 9-36
Salt Flat	*.97			1-14-36
Darst Creek	*.97			1-14-36
Placedo (Heavy)	*.85			4- -36
Placedo (Light)	*.95			4- -36
Port Lavaca	*.97			
Plymouth	*.90			12-17-35

* All gravities—flat rate.
† Gulf Coast prices as posted by Humble Oil & Refining Company.

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Arkansas				
El Dorado (Light) and Rainbow	25— .78	2¢	40— 1.10	1-10-36
El Dorado East Field and Smackover	*.75			1-10-36
North Louisiana	25—$0.78	2¢	40—$1.10	1-10-36
Urania	*.97			1-10-36
South Louisiana	Below			
Lockport	19— .92	2¢	34— 1.22	1- 9-36
Iowa, Cameron Mds.	Below 19— .82	2¢	34— 1.12	1- 9-36
Rocky Mountain States				
Salt Creek	29— .94	2¢	40— 1.18	1-10-36
Elk Basin	*1.28			1- 9-36
Grass Creek (Light)	*1.28			1- 9-36
Grass Creek (Heavy)	*.58			1- 9-36
Big Muddy	*1.11			1- 9-36
Rock Creek	*1.12			1- 9-36
Sunburst	*1.15			6- 5-36
Lance Creek	*.90			1- 9-36
Osage	*1.08			
Cat Creek	*1.07			8-25-33
Cut Bank	*1.35			6- 3-36
Pondera	*1.05			9-29-33
Hog Back, N. M	*1.00			9- 8-33
Lea County, N. M	*.75			9-29-33
Mid-West States				
Lima	*1.25			1-10-36
Illinois	*1.23			1- 9-36
Princeton	*1.23			1- 9-36
Western Kentucky	*1.23			1- 9-36
Pennsylvania				
Bradford	*2.45			1-13-36
Sw. Pa. Pipe Line	*2.17			1-13-36
Eureka Pipe Line	*2.12			1-13-36
Buckeye Pipe Line	*1.97			1-13-36
Corning Grade	*1.42			1-13-36
Michigan				
Central Michigan	*1.42			6-15-36
Muskegon	*.70-1.00			12-31-32
Canada				
Petrolia	*2.10			9- 9-33
Oil Springs	*2.17			9- 9-33

* All gravities—flat rate.
‡ Average price, all oil sales being to small refineries.

MAJOR PRICE CHANGES

	Penna. (Nat. Tr.)	Mid.-Cont. (36 Gr.)	Calif. (26 Gr.)
June 19, 1933	Up 10	Up 19	.....
June 26, 1933	Up 10	.....	Up 9-12
July 6, 1933	Up 13	Up 10	.....
July 17, 1933	Up 15	.....	.....
July 28, 1933	Up 15	.....	.....
August 11, 1933	Up 10	.....	.....
August 24, 1933	.....	Up 10	.....
August 30, 1933	Up 15	.....	.....
September 6, 1933	Up 10	Up 10	Up 15
September 8, 1933	.....	Up 15	.....
May 1, 1934	Up 10	.....	.....
November 6, 1934	Cut 25	.....	.....
December 6, 1934	Cut 25	.....	.....
January 4, 1935	Up 15	.....	.....
February 4, 1935	Up 15	.....	.....
May 16, 1935	Cut 15	.....	.....
June 26, 1935	Cut 15	.....	.....
July 16, 1935	Cut 10	.....	.....
August 29, 1935	.....	.....	Cut °4
September 6, 1935	Up 5	.....	.....
October 29, 1935	Up 15	.....	.....
November 1, 1935	.....	.....	Up °28
November 18, 1935	Up 15	.....	.....
December 6, 1935	.....	.....	Up °9
January 9, 1936	.....	Up 10	.....
January 13, 1936	Up 15	.....	.....
February 26, 1936	.....	.....	Up '5

CRUDE PRODUCTION TAXES

Oklahoma—Five percent of gross value less royalty interest.

Texas—Two cents or 2 percent, whichever is higher.

Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 percent of gross market values.

Montana—Two percent of gross value at well and ⅜ of 1c per barrel.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.

* All gravities—flat rate.
° Signal Hill 26 gravity.
' Seal Beach 26 gravity.

CALIFORNIA OIL PRICES

(All gravities above those quoted take highest prices of that field. Effective February 26, 1936)

Gravity	Signal Hill	ea Beach Alamitos Heights	Huntington Beach	Inglewood	Playa Del Rey	Olinda Brea Canyon	Athens Rosecrans	Elwood Terrace	Torrance	Richfield	Whittier East Coyote La Habra	Montebello	West Coyote Hills	Santa Fe Springs	New Hall McKittrick Kern River Round Mountain	Mountain View	Midway-Sunset Buena Vista Hills Elk Hills	Lost Hills	Coalinga	Wheeler Ridge
14-14.9	$.80	$.79	$.78	$.79	$.80	$.76	....	....	$.80	$.76	$.76	$.77	$.78	.....	$.70	....	$.70	$.70	$.70	....
15-15.9	.80	.79	.78	.79	.80	.76	....	....	.80	.76	.76	.77	.78	.....	.70	....	.70	.70	.70	....
16-16.9	.80	.79	.78	.79	.80	.76	....	....	.80	.76	.76	.77	.78	.....	.70	....	.70	.70	.70	....
17-17.9	.80	.79	.78	.81	.80	.76	....	....	.80	.76	.76	.77	.78	.....	.70	....	.70	.70	.70	....
18-18.9	.80	.79	.78	.84	.80	.78	....	....	.82	.76	.76	.77	.78	.....	.70	....	.70	.70	.70	....
19-19.9	.82	.79	.82	.87	.84	.81	....	....	.85	.76	.78	.77	.78	.....	.70	$.70	.74	.74	.71	$.70
20-20.9	.85	.79	.85	.90	.88	.84	....	....	.88	.78	.82	.77	.80	.....	.....	.70	.78	.78	.72	.70
21-21.9	.88	.79	.89	.93	.93	.88	....	....	.91	.80	.85	.77	.84	.78	.....	.73	.82	.82	.74	.70
22-22.9	.92	.82	.92	.96	.98	.92	....	....	.93	.84	.89	.79	.88	.78	.....	.77	.87	.86	.78	.72
23-23.9	.95	.86	.96	.99	1.02	.96	$.84	....	.96	.88	.93	.82	.92	.78	.....	.80	.92	.90	.82	.76
24-24.9	.99	.91	1.00	1.02	1.06	.99	.88	....	.99	.91	.96	.85	.96	.82	.....	.84	.97	.94	.86	.79
25-25.9	1.03	.95	1.03	1.05	1.11	1.03	.93	....	1.02	.95	....	.89	.99	.86	.....	.88	1.01	.98	.90	.83
26-26.9	1.06	1.00	1.07	1.09	1.16	1.06	.98	....	1.05	.98	....	.92	1.03	.90	.....	.91	1.06	1.02	....	....
27-27.9	1.10	1.05	1.11	1.12	....	1.10	1.03	....	....	1.02	....	.96	1.06	.95	.....	.95	1.10	1.06	....	....
28-28.9	1.14	1.10	1.14	1.15	....	1.14	1.07	....	....	1.06	....	.99	1.10	.99	.....	.99	1.15	1.10	....	....
29-29.9	1.17	1.15	1.18	1.18	F.O.B.	1.17	1.12	....	....	1.09	....	1.03	1.14	1.03	.....	1.02	1.20	1.14	....	....
30-30.9	1.21	1.19	1.22	1.21	Pipe	1.21	1.17	F.O.B.	....	....	....	1.07	1.17	1.08	.....	1.06	1.25	1.18	....	....
31-31.9	....	....	....	1.24	Line	1.24	1.22	Ship	....	....	....	1.11	1.21	1.12	.....	1.09	1.29	....	....	....
32-32.9	....	....	....	1.27	....	1.27	1.27	....	Kettleman Hills			1.14	1.25	1.16	.....	1.13	1.34	....	....	....
33-33.9	....	....	....	....	....	....	1.32	$1.28	1.19			1.18	1.28	1.20	.....	1.17	1.38	....	....	....
34-34.9	....	....	....	....	....	....	1.37	1.32	....	1.23	....	1.22	1.32	1.25	.....	1.20	.....	....	....	....
35-35.9	....	....	....	....	....	....	1.42	1.35	....	1.27	....	1.25	....	1.29	.....	....	.....	....	....	....
36-36.9	....	....	....	....	....	....	1.46	1.39	....	1.31	....	1.29	....	1.33	.....	....	.....	....	....	....
37-37.9	....	....	....	....	....	....	1.51	1.43	....	1.35	....	1.32	....	1.37	.....	....	.....	....	....	....
38-38.9	....	....	....	....	....	....	1.56	....	....	1.39	....	1.36	....	1.42	.....	....	.....	....	....	....
39-39.9	....	....	....	....	....	....	1.61	....	....	1.43	....	1.40	....	.....	.....	....	.....	....	....	....
40-40.9	....	....	....	....	....	....	1.66	....	....	....	....	1.43	....	.....	.....	....	.....	....	....	....

WORLD DEVELOPMENTS and TECHNOLOGY

Edited by
WM. V. GROSS, Associate Editor

ALASKA WILDCAT
7000-foot test planned by Iniskin Drilling Co.

Iniskin Drilling Company, headed by R. E. Havenstrite, Los Angeles oil man, is preparing to ship a modern rotary rig and all necessary equipment for completing a 7000-foot wildcat on a location 5½ miles inland from Chinitna bay, Chinitna peninsula, Alaska. The vicinity of the 60,000-acre block held by the operators is about 180 miles south of Anchorage, and 200 miles west of Seward, Alaska.

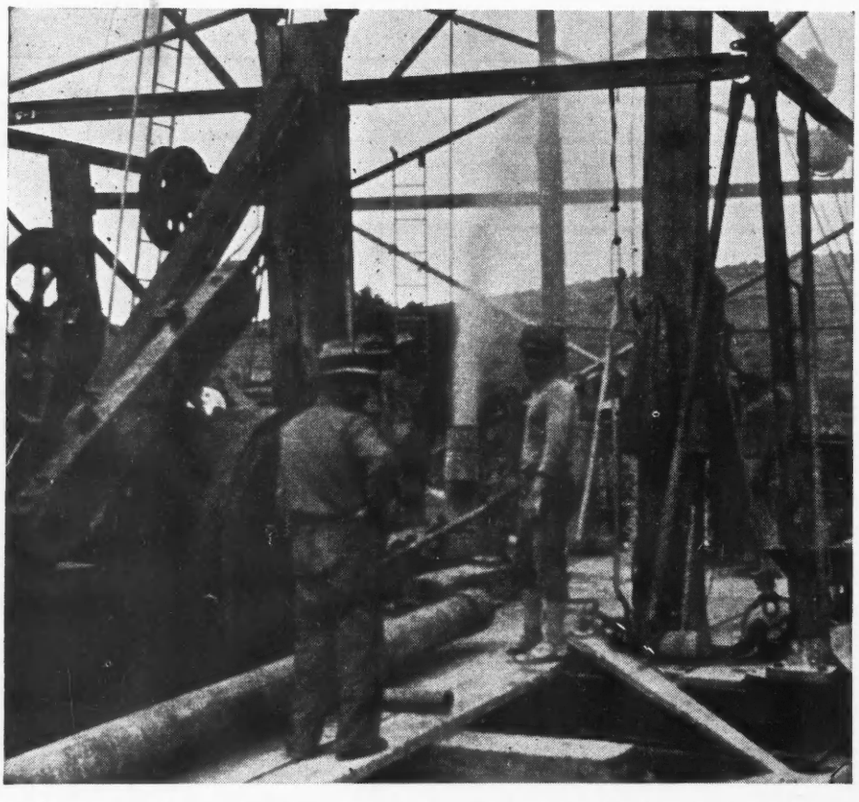
In order to assure completion of the well the operators have purchased a 3500-ton freighter equipped with essentials for maintaining 55 men for eight months and assuring continuance of operations when conditions permit. In addition to the freighter, Iniskin Drilling Company has also purchased two 40-ton lighters and a 60-foot power cruiser to facilitate drilling and communication between Iniskin bay, where the freighter will anchor, and the well.

Havenstrite and Carl Beal, vice president of the company, made a trip to the Iniskin region of Alaska in 1932 and sent a geological party back in 1933 to check their opinions of the region, where seepages had been observed.

The block held by Iniskin Drilling Company is said to cover the crest of a large anticline extending about 12 miles across the peninsula and closed on the northwest and southwest ends.

MORE ACTIVITY

Operators in the Province of Alberta, Canada, will drill deeper and farther afield this year in search of crude reserves than they ever have, according to a recent statement by Charles C. Ross, petroleum engineer who is minister of mines and lands for Alberta. The minister states Alberta's new regulations are encouraging drilling in many promising areas hitherto unexplored.



Wildcat recently completed as a small gas well near Mardin, Turkey, by the Turkish government under direction of Djevad Eyoub. American equipment and Texas drillers, S. H. Russel of Dallas and George Schelling of Houston, were used on the job.

WILDCAT CAMPAIGN
To develop 1,482,000-acre Sumatra Concession

Netherlands Pacific Petroleum Company, known in the East Indies as N. V. Netherlandsche Pacific Petroleum Maatschappij, plans a vigorous campaign of exploratory drilling to prove production on a concession of 1,482,000 acres in Sumatra recently granted it by the Netherlands government, according to word received by THE OIL WEEKLY from Standard Oil Company of California, parent company. The tenor of the announcements was somewhat as follows:

The concession has an area of approximately 1,482,000 acres and it is situated on the east coast of Sumatra, about midway between the present oil-producing region of Atjeh, at the north end of the island, and the prolific Palembang and Djambia fields, near the south end. It gives the Netherlands Pacific Company right to conduct geological work and carry on other forms of exploration activity within the area for a period of six years. It is contemplated that a development concession will be issued on such portions of the area as the company may find are favorable to the production of oil. Geologists are now at work in the region and have been for some time. The company plans a vigorous program to establish the existence of petroleum in commercial quantities.

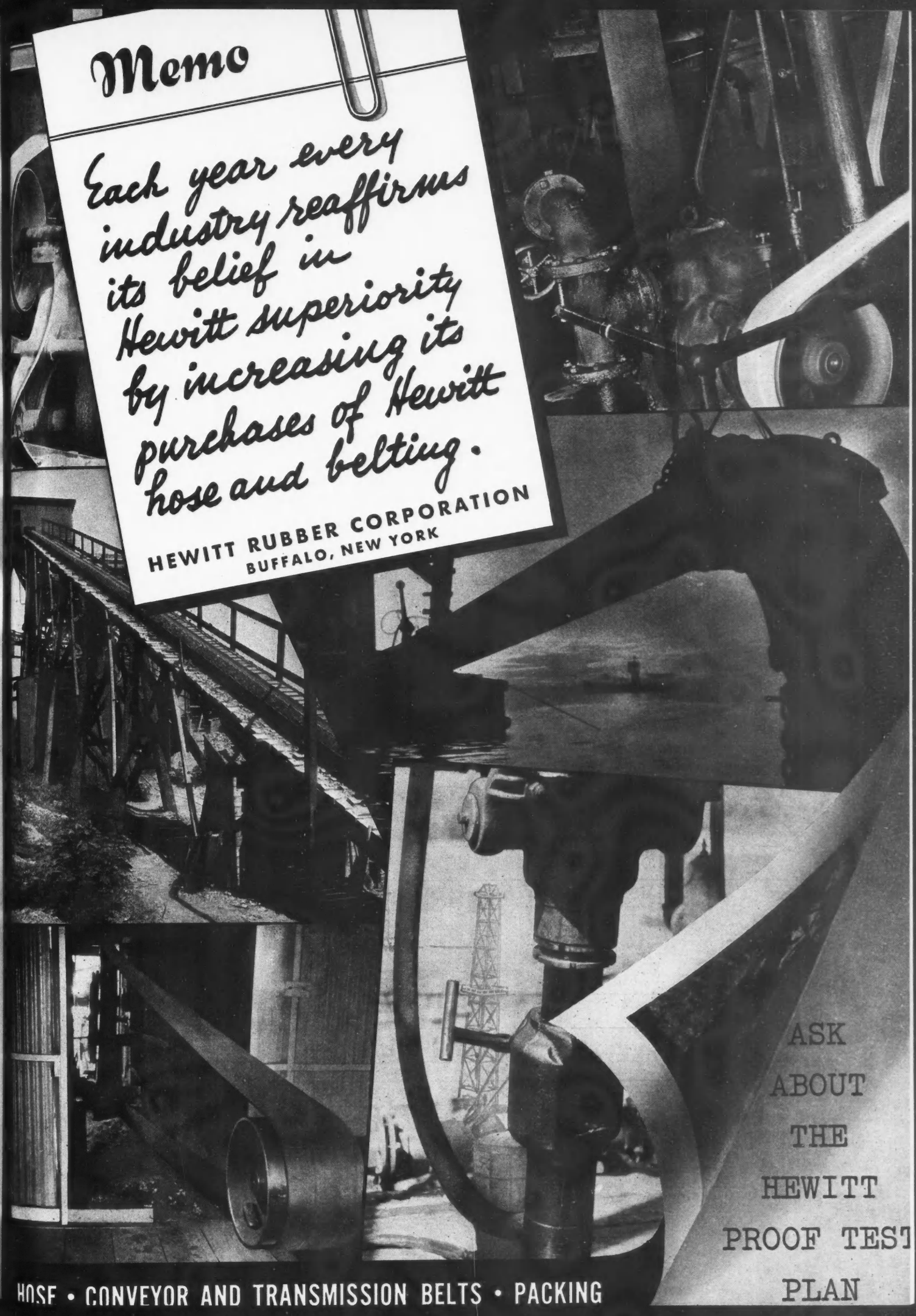
Lying almost opposite the great seaport of Singapore, the concession is well-located with regard to the major steamship lanes in that part of the world.

Netherlands Pacific Petroleum Company owns 20 percent interest in the Netherlands New Guinea Petroleum Company, which is carrying on an active exploration campaign in Netherlands New Guinea.

EAST INDIES UP
Yield in 1935 Totals 42,571,917.5 Barrels

Fields of the Netherlands Indies produced 42,571,917.5 barrels of crude oil in 1935, an increase of 188,758.5 barrels over the 42,383,159.0 barrels produced in 1934, according to figures prepared by the Javanese bureau of mines.

The accompanying table, which gives production by fields in Netherlands Indies for 1934 and 1935, shows distinct losses in output in North and


Memo
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East Sumatra, Java, East Borneo and Tarakan. Fields of South Sumatra, including the famous Palembang fields, increased more than enough to offset losses suffered in the above regions.

Production on the Island of Ceram showed a small increase due primarily to De Bataafsche Petroleum Maatschappij's work in Lemoen field.

South Sumatra, with its 20 fields, continues to lead other producing districts of Netherlands Indies, having accounted for 20,087,166.4 barrels of the region's total of 42,571,917.5 barrels produced in 1935. Fields of East Borneo and Tarakan took second place with a recorded recovery of 12,711,982.5 barrels, a decrease of 757,654.8 barrels from the 13,469,637.3 barrels produced in 1934.

It will be noted from the table that each field in Netherlands Indies is a one-company proposition.

Netherlands Indies Production

NORTH AND EAST SUMATRA

Name of Company*	Name of Field	Production in Metric Tons		Production in U. S. Barrels Arbitrarily Converted on Basis of 7.0 Barrels to 1 Ton	
		1934	1935	1934	1935
K. N. M.	Aroebaai	60,304.7	50,073.3	422,132.9	350,513.1
De B. P. M.	Boeloe Telang	1,282.0	1,127.3	8,974.0	7,891.1
De B. P. M.	Djoelo Rajeu	2,874.2	2,534.4	20,119.4	17,740.8
P. P. M.	Perlak	77,395.5	63,722.3	541,768.5	446,056.1
N. I. A. M.	Poeloe Pandjang	206,978.3	134,145.8	1,448,848.1	939,020.6
De B. P. M.	Rantau	702,129.6	635,949.5	4,914,907.2	4,451,646.5
K. N. M.	Telaga Said	2,272.0	1,858.3	15,904.0	13,008.1
TOTALS		1,053,236.3	889,410.9	7,372,654.1	6,225,876.3

SOUTH SUMATRA (Palembang)

E. M. N.	Arahan	23.9	.....	167.3	.....
K. N. M.	Babat I.	17,640.4	13,423.8	123,482.8	93,966.6
N. K. P. M.	Benakat	136,038.7	323,731.6	952,270.9	2,266,121.2
De B. P. M.	Darat	.....	17,285.2	.....	120,996.4
N. I. A. M.	Djambi	309,169.4	375,695.4	2,164,185.8	2,629,867.8
De B. P. M.	Kloeang	20,303.8	20,181.6	142,126.6	141,271.2
De B. P. M.	Limau	18,534.3	20,070.6	129,740.1	140,494.2
N. K. P. M.	Mambang	35.5	227.6	248.5	1,593.2
De B. P. M.	Mangoendjaja	169.1	834.1	1,183.7	5,838.7
K. N. M.	Moeara Enim	42,728.1	25,155.8	299,096.7	176,090.6
De B. P. M.	Noord-Kloeang	423,225.9	403,515.5	2,962,581.3	2,824,608.5
N. K. P. M.	Pendopo	868,201.2	972,513.0	6,077,408.4	6,807,591.0
De B. P. M.	Ramok	1,343.9	866.2	9,407.3	6,063.4
De B. P. M.	Soeban Boeroeng	21,425.6	18,724.1	149,979.2	131,068.7
K. N. M.	Soeban Djerigi	151,756.1	101,054.6	1,062,292.7	707,382.2
K. N. M.	Sumpal	3,544.5	3,293.3	24,811.5	23,053.1
N. K. P. M.	Talang Akar	412,158.4	510,025.6	2,885,108.8	3,570,179.2
De B. P. M.	Tandjong Loentar	50,731.4	30,554.1	355,119.8	213,878.7
De B. P. M.	Tandjong Loentar Oost	1,944.1	1,089.2	13,608.7	7,624.4
De B. P. M.	West Limau	51,240.1	31,353.9	358,680.7	219,477.3
TOTALS		2,530,214.4	2,869,595.2	17,711,500.8	20,087,166.4

JAVA

P. M. G.	Bapo	.....	266.5	.....	1,865.5
De B. P. M.	De 12 Desa's	14,586.3	12,233.5	102,104.1	85,634.5
De B. P. M.	Djabakota	20,138.4	17,803.5	140,968.8	124,624.5
De B. P. M.	Djepon	192,324.0	124,013.4	1,346,268.0	868,093.8
A. P. C.	Klantoeng Sodjomerto	15.3	.....	107.1	.....
De B. P. M.	Lidah Koelon	6,197.7	5,116.9	43,383.9	35,818.3
De B. P. M.	Ledok	50,305.4	36,472.7	352,137.8	255,308.9
N. K. P. M.	Loesi	8,030.6	10,767.9	56,214.2	75,375.3
De B. P. M.	Made	16,965.3	14,312.6	118,757.1	100,188.2
De B. P. M.	Metatoe	121.5	34.4	850.5	240.8
N. K. P. M.	Petak	2,219.7	2,243.8	15,537.9	15,706.6
O. P. C.	Petiken	38.7	17.8	270.9	124.6
De B. P. M.	Tinawoen	198,739.4	240,984.8	1,391,175.8	1,686,893.6
N. K. P. M.	Tremboel	632.4	483.1	4,426.8	3,381.7
TOTALS		510,314.7	464,750.9	3,572,202.9	3,253,256.3

EAST BORNEO AND TARAKAN

N. I. A. M.	Boenjoe	9,126.4	6,031.8	63,884.8	42,222.6
De B. P. M.	Louise	561,377.2	474,439.7	3,929,640.4	3,321,077.9
De B. P. M.	Mathilde	2,469.8	2,600.2	17,288.6	18,201.4
K. N. M.	Moeara-Angara	228,224.9	266,403.0	1,597,574.3	1,864,821.0
K. N. M.	Oeloe Karang Moemoes	39.4	51.9	275.8	363.3
De B. P. M.	Sambodja	303,542.0	262,036.0	2,124,794.0	1,834,252.0
De B. P. M.	Semberah	7,405.0	3,434.6	51,835.0	24,042.2
K. N. M.	Tarakan	812,049.2	801,000.3	5,684,344.4	5,607,002.1
TOTALS		1,924,233.9	1,815,997.5	13,469,637.3	12,711,982.5

CERAM

Boela Pet. Mij.	Boela	35,635.3	33,868.1	249,477.1	237,076.7
De B. P. M.	Lemoen	1,102.4	8,079.9	7,716.8	56,559.3
TOTALS		36,737.7	41,948.0	257,163.9	293,636.0
Grand Total		**6,054,737.0**	**6,081,702.5**	**42,383,159.0**	**42,571,917.5**

*K. N. M. tot E. v. P. in N. I.—"Koninklijke Nederlandsche Maatschappij tot Exploitatie van Petroleum bronnen in Nederlandsch-Indie."
De B. P. M.—"De Bataafsche Petroleum Maatschappij."
P. P. M.—"Perlak Petroleum Maatschappij."
N. I. A. M.—"Nederlandsch-Indische Aardolie Maatschappij."
E. M. N.—"Exploratie Maatschappij Nederland."
N. K. P. M.—"Nederlandsche Koloniale Petroleum Maatschappij."
P. M. G.—"Petroleum Maatschappij Gaboes."
A. P. C.—"Algemeene Petroleum Compagnie."
O. P. C.—"Oriental Petroleum Company."

WILDCAT SHOWING GAS

Mexican test shuts down after cementing casing

After encountering strong gas pressures in several sands, Continental Oil Company's Zacate 4, just across the national boundary from McAllen, Texas, and in Tamaulipas, Mexico, is shut down at 5447 feet. Following landing of casing at 4138 feet, liner has been run in the hole to bottom. One half mile south of Zacate 4 Continental is rigging up on Zacate 5.

Five miles southwest of Rio Grande City, Texas, and in Mexico, Ohio-Mex Oil Company's Rancherias 4 is drilling below 4800 feet after coring numerous gas sands and a few shows of oil.

Compania de Petroleo Mercedes, operating on a ranch about 18 miles southwest of Rio Grande City, is waiting orders on Santa Gertrudis 1 after cementing a string of casing at 1622 feet.

Early completion is expected for Ohio Mex Oil Company's Cloete 1 in Coahuila after injecting 2000 gallons of acid into gas bearing limestone at 3442 feet. If the completion is commercially successful, its output will be conveyed to the plant of the American Smelting and Refining Company, 12 miles north of Sabinas, Coahuila, Mexico.

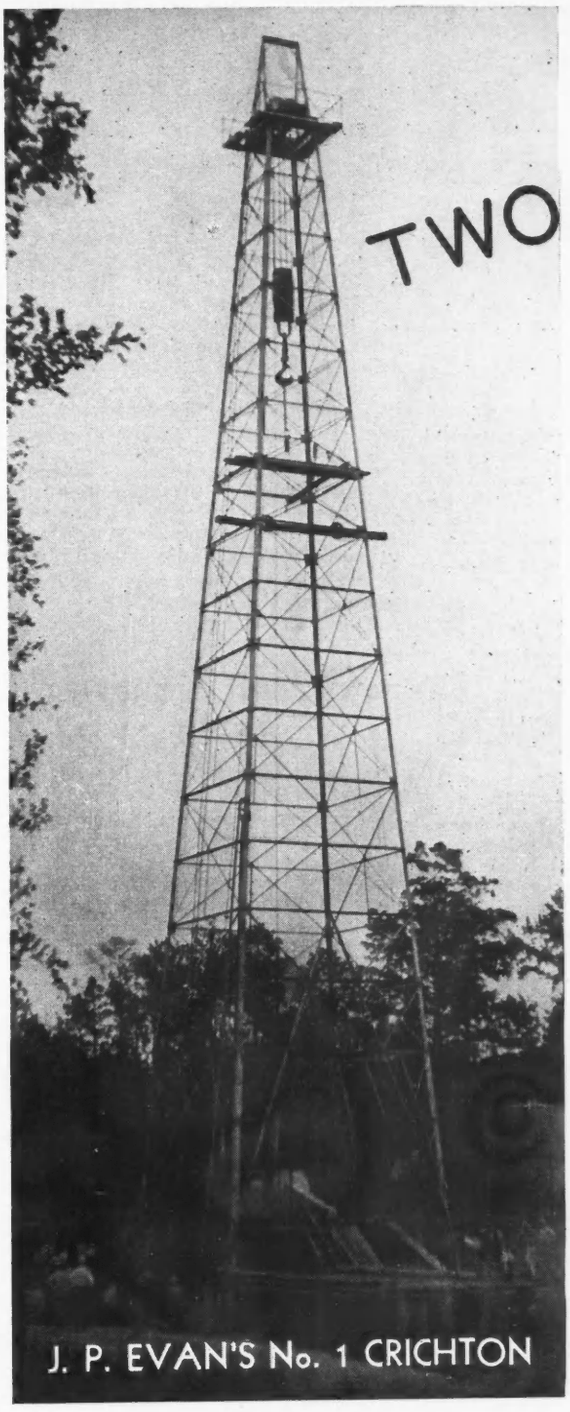
ARGENTINE PROJECT

Standard Oil Company of New Jersey, operating through a subsidiary, has obtained a concession for exploration and development of a 10,000-acre concession in the Province of Salta, Republic of Argentina, according to an announcement from the Bureau of Mines of Salta.

VENEZUELAN WILDCAT

Standard Oil Company of Venezuela is reported to have obtained a good indication of commercial production in El Salto 1, wildcat being drilled in the southwestern part of the State of Monogas, Eastern Venezuela.

Standard Oil Company of Venezuela is a subsidiary of Creole Petroleum Corporation, which produced a daily average of 78,954 barrels of oil in Venezuela during 1935 as against 74,973 barrels per day during 1934, according to a statement made before stockholders recently by Eugene Holman, president of the company.



TWO NEW FIELDS IN ONE MONTH

In the month of May production was established on the Sibley structure of Webster Parish, Louisiana, and the Newlight structure of Tensas Parish, Louisiana.

Each of these structures is located in wildcat territory, and each was discovered and mapped by this organization with the advanced magnetometric methods which we have pioneered and developed during the past nine years.

These methods have been used to locate anticlines, salt-dome structures, uplifts underlain with igneous material, and faults; to map the structure of sedimentary formations, and to determine the depth and configuration of the Basement Complex.

We will be pleased to discuss with you the advisability of including our geophysical service in your exploration program.

1. J. P. Evans' No. 1 Crichton, the first deep test on the Sibley structure, discovered by William M. Barret, Inc., in 1933, gauged 60,000,000 cubic feet of gas, with estimated 500 barrels of 54-gravity distillate per day, from the lower Glen Rose section (Lower Cretaceous) at 5590 feet.

2. H. M Jones' No. 1 Chicago Mill & Lbr. Co., the first well on the Newlight structure, discovered by William M. Barret, Inc., in 1932, tested 5,000,000 cubic feet of gas per day, with some oil saturation in cores, from basal Jackson (upper Eocene) at 779 feet.

William M. Barret, INCORPORATED

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Drilling Declines

12 ABANDONMENTS AND 4 OKLAHOMA CITY FAILURES

WEEKLY STAFF REPORT

Oklahoma City.—Field development in the North Extension of the Oklahoma City pool went over the crest the third week in June. It now has more wells completed than it has drilling. Only an unexpected turn of events can bring any revival of drilling, so this hectic drilling campaign is scheduled to pass out of field records during July.

By the end of June sufficient wells will be in the completed class to give the new part of the field total potential rating of 1,000,000 barrels daily. Wells to be completed in July should raise this close to the million and a half barrel level.

If well output is held to 4.5 percent of potential allowed output will be around 65,000 barrels daily. Since it is now necessary to connect some edge wells with gas lift, it is certain that further drilling will leave this necessary and the loss occasioned by shifting production methods will hold output below the allowable.

Pending completion of the drilling campaign this part of the Oklahoma City pool is being credited with 50,000 barrels of oil daily until production goes on the basis of next potentials, which become effective October 1.

Abandonments and completions last week reduced the number of active wells in the north extension field to 41. Of these 18 are at completion depths, some waiting on cement to set, some ready to drill plugs and others ready to take potentials.

The week saw 12 abandonments. Most of these were only locations or derrick. In addition four tests in the extreme east side of the north extension missed the Wilcox sand. They are in the East Heights subdivision and near British American Oil Producing Company's Summit 1, Twenty-first street and Lottie avenue, which missed the Wilcox formation last week. This well was carried to the School Land zone where it made a producer, depth 6509 feet. On gas lift the well is producing around 600 barrels daily.

Nearby tests which have not found the Wilcox sand productive will be carried down the the School Land zone as the Summit well was.

But locations staked in the area have been abandoned, as production from this formation is not sufficient to justify drilling expense.

Two completions south of Twenty-third street provided the outstanding field news of the week.

Phillips Petroleum Company completed Stiles 1, Tenth street and Phillips avenue, for 5450 barrels potential. This well found the Wilcox sand and drilled to 6475 feet. It is farthest south of the wells in the North Extension, being only a quarter of a mile from the old part of the field.

Just south of Twenty-third street at Stonewall avenue Barnsdall Oil Company completed Sunrise 1 for 17,415 barrels potential, depth 6373 feet.

Between this Barnsdall well and that of Phillips Petroleum Company is the area from which further development of the North Extension could come. Potential flow and sand bodies indicate the existence of favorable drilling sites. Except for a few spots, however, this area is still not under lease. It is occupied by some of the finer homes of the state capitol. Bonus prices have been set at high figures by these home owners. In addition plat restrictions offer another difficulty of gaining permits to drill.

Big Crescent Well

Another test of Continental Oil Company's McConnell 2, NW SE SE 28-17-4w, Logan County's big Crescent pool gusher, was made early in the week and the well was given a potential rating of 33,928 barrels. The flow was accompanied with 40,000,000 cubic feet of gas. Several previous attempts to make a thorough test of this well failed due to inadequate tankage facilities to handle the output. Production is from the second Wilcox with hole bottomed at 6305 feet. This production from a level below the common production strata in the area will undoubtedly produce a deepening of other producers.

Stahl Petroleum Company has staked a location for Shulstray 1, SW NE NE 17-10-2w, a mile from nearest production and to the northwest of the Moore field of Cleveland County. An equal distance south of present production, Sinclair Prairie Oil Company is starting Stubbeman 1, NE SW NW 34-10-2w. The same company's Hussman B, NE NE SW 21-10-2w, and Peaches 1, NE SE NW 21-10-2w, are below 6200 feet, not far from expected production. These latter locations may be considered within the proved area, although Shulstra 1 and Stubbeman 1, extension tests at opposite ends of the area, extend the drilling over a three and one quarter mile range.

Sinclair Prairie Oil Company's Rice 1, discovery well of the pool, NE NE NE 28-10-2w, showed for better than a 20,000 barrel well through nine inch casing with back pressure against the production. The well is bottomed at 7312 feet.

Continental Oil Company completed Young 8, NW SE NW 31-14-3w, in the Edmond pool of Oklahoma County for 2280 barrels on a four hour potential test. Marathon Oil Company's Agnes Messer 2, NW SW SW 32-14-3w, in the same sector showed for oil at 6641 feet and was drilling ahead. Operators expected to acidize the Simpson before continuing to the Wilcox.

Allison, Barnhill and Sturdivant, et al have made a location for a wildcat in Section 30-2n-18w, Texas County in the Oklahoma Panhandle. Location is directly south of Hardesty, and will test the dolomite for oil. Depth will probably be around 3400 feet. Although the area is conceded to be gas producing, no oil is produced in the vicinity. Geological surface formations outcrop throughout this region, and it is the opinion of some geologists that flank oil production is possible from the Texas Panhandle dolomite to the Kansas line, particularly along the east side of the gas zone.

AWAITING RESULTS

Wildcats hold interest in South Oklahoma

Ardmore.—Southern Oklahoma still claims the interest of major operators, where a number of wildcats are seeking the lower strata. Magnolia Petroleum Corporation is reported to have added nearly 1000 acres, scattered through the Fredrick sector, to a considerable block previously acquired.

Gulf Oil Corporation's Wearmouth 1, SE NW SE 31-1s-18w, northwest of Fredrick, Tilman County, a wildcat test that is being closely watched, was fishing late in the week in lime at 4941 feet. Operators expect to resume deepening this test shortly and it is reported that it may go to 6000 feet if commercial production is not encountered earlier.

This well encountered a number of gas shows in lime and dolomite above 4880 feet that were not of very great volume. Cores from the well indicated the Simpson formation, the existence of which has been considered doubtful in this immediate area, and may lead to thorough exploration of the lower strata in this sector.

Southeast of Fredrick in the same county, Gulf Oil Corporation's McWilliams 1, NW SW SW 15-3s-17w, which has been shut down while waiting on additional equipment, has again resumed operation and is drilling below 3600 feet.

Magnolia Petroleum Corporation's Medrano 5, SE NW SW 36-6n-10w, is a location for a new deep test of the proven area of the Cement pool of Caddo County. Wasteka Oil Company's Melton 1, SW SW SE 26-6n-10w, completed for 51,000,000 feet of gas from 5199 feet at the north edge of the Cement production, and which gave considerable difficulty in casing off the gas, has been recemented after again blowing out.

Routine drilling is in progress in the

Wildcat Jim and Ed Cox area, with six wells nearing completion. The last well to complete was Cox and Hamon's Mena 2, SE SW NE 6-2s-2w, northern Carter County, which made 160 barrels of oil per day from 2450 feet. Gas volume was estimated at 250-000 cubic feet per day. Shell Petroleum Corporation's Higgins 5, SE NW NE 6-2s-2w, with casing set, will be an early completion in the sector.

Amerada Petroleum Corporation and Stanolind Oil & Gas Company's Westheimer 1, SW SE SW 27-6s-2e, Love County test that refuses to complete, made slightly more than one barrel an hour on the last swabbing test. In the same county, Sinclair Prairie Oil Company's Stockton 1, SE SE SW 26-6s-2, has resumed drilling after sidetracking drill pipe. The hole is below 8400 feet.

47 NEW PERMITS

Tulsa.—Oklahoma had 47 new locations the past week with Pontotoc County in the lead with seven. Creek, Osage and Seminole counties each placed five new starts on the list. Carter, Hughes, Okfuskee and Okmulgee counties had three first reports each. Two reports were made in Jackson, Pottawatomie and Tulsa counties, and Caddo, Jefferson, Kiowa, Lincoln, Marshall, Muskogee and Payne each reported one start.

One hundred and five wells were completed in Oklahoma, 64 being oil wells for a total initial production of 118,277 barrels. Two wells were completed for gas to make 5,200,000 cubic feet. Twenty-seven wells were dry and there were 12 abandoned locations.

CLEVELAND LEASE

Oklahoma City.—Alm Oil Corporation leased 80 acres of school land in the heart of the Cleveland County oil play, near Moore, for $61,600. The lease covered two individual tracts offered by the school land commission, the corporation bidding $20,800 for one tract and $40,800 for the other.

10-ACRE SPACING

Oklahoma City.—The State Corporation Commission approved the petition of the Stanolind Oil & Gas Company requesting a 10-acre spacing program for the north Welston area of Lincoln County. A total of nearly 600 acres is included in the decision, the area being classed as a wildcat sector. There is one producing location on the tract at present, Stanolind Oil & Gas Company and Amerada Petroleum Corporation's Crawford 1, on a 10-acre tract at CNE SE 35-15-2e, which is producing 65 barrels per day, 35 barrels under the class "D" allowable for the area.

Tulsa.—Kewanee Oil & Gas Company has announced through J. B. Steele, superintendent, the purchase of all interests of Coline Oil Company in the Healdton district of Carter County, Oklahoma. The purchase consideration was not revealed. The deal included a total of 70 producing wells with a daily production of 450 barrels.

OKLAHOMA
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CARTER COUNTY—		
Williams et al, Brady 1, sw ne sw 19-1s-2w	35	1305
Phillips Pet., Akers 2, se sw sw 4-2s-2w	20	1686
Sykes & Carter, Byrd 2, ne sw sw 4-2s-2w	10	1441
Sykes, Byrd 3, cn½ s½ sw 4-2s-2w	2	1338
Sykes, Eaves 3, ne nw nw 5-2s-2w.	*	2437
Cox & Hammond, Mena 2, se sw ne 6-2s-2w	175	2500
Sina Wilson 1, ne nw nw 9-2s-2w	5	1757
Sina Wilson 2, nw ne nw 9-2s-2w	5	1800
Simpson-Fell, Merrick 1, sw se nw 9-2s-2w	10	1530
Ideal O. & G., Scoggins 10, sw se se 32-3s-3w	55	1132
Turman Oil, Rexroot "E" 12, ne ne ne 10-4s-2w	75	1807
Wolverine Oil, Dillard 114, cwl e½ nw sw 22-4s-2w (pb 2737)	20	2880
Bull Head Oil, Daney 4, sw nw sw 4-4s-3w (otd 1080) (pb 920)	*	1105
COMANCHE COUNTY—		
English Drlg et al, Allen 1, se se ne 28-2n-10w	*	831
COTTON COUNTY—		
Shasta Oil, Burnaugh 11, nw ne se 2-2s-10w	22	2196
CREEK COUNTY—		
Sinclair Prairie, Litchfield 30, ne se ne 21-17n-3e (pb 2877)	4	2902
GRADY COUNTY—		
Carter Oil, White 2, sw se se 17-3n-5w	57	1832
HUGHES COUNTY—		
Amerada-Stanolind, Maun 1, nw sw nw 6-9n-9e	29	1706
Hormann, Simon 1-A, ne ne nw 9-9n-9e	75	1693
JACKSON COUNTY—		
John Dickson et al, Wright 1, ne nw se 19-1n-19w	*	3200
Conyer, Cobb 1, ne nw ne 22-1n-20w	12	1137
JEFFERSON COUNTY—		
Long, Yingling & Lauck, Seay 19, sw sw se 3-7s-5w	29	1267
Seay 20, sw sw se 3-7s-5w	12	1108
LINCOLN COUNTY—		
Slick-Urschel, Ransin 1, sw sw nw 32-15n-3e	*	5220
Ausley, Vanderpool 1-A, nw sw se 11-16n-3e	*	569
MARSHALL COUNTY—		
Kingston O. & G., Felts 4, nw ne nw 6-8s-6e	50	555
McCLAIN COUNTY—		
Arab Pet., Autry 1, nw nw nw 16-7n-3w (pb 8371)	*	8775
MUSKOGEE COUNTY—		
Morrison, Reed 2-A, cnl nw sw 18-14n-16e	*	1780
Foltz, McIntosh 4, cwl nw se 17-14n-17e	*	2252
Rose, Jefferson 4, cnw nw 33-15n-15e	*	1789
NOBLE COUNTY—		
Shell, Murray 1, sw se se 10-24n-1w	*	4511
OKFUSKEE COUNTY—		
Earl Evans et al, James 1, se sw nw 36-10n-8e	*	1761
Fleming et al, Pincham 7, cse sw 2-10n-11e	*	2168
Panther, Smith 5-A, ne ne ne 11-11n-11e	4	1223
Ralvern Oil, Winchip 1, cnw sw 12-11n-9e	lcn.	abd.
OKLAHOMA COUNTY—		
Anderson-Prichard, Mitchell 1, se se sw 15-12n-3w	lcn.	abd.
Proffit 2, ne sw se 15-12n-3w	*	1024
Proffit 3, ne sw se 15-12n-3w	lcn.	abd.
Barnsdall Oil, Guthrie 4, sw sw se 15-12n-3w	*	2209
Guthrie 5, nw sw se 15-12n-3w	lcn.	abd.
Guthrie 6, nw sw se 15-12n-3w	lcn.	abd.
Guthrie 7, sw sw se 15-12n-3w	lcn.	abd.
Guthrie 8, nw sw se 15-12n-3w	lcn.	abd.
Big Chief Drlg, Hagenmeister 1, se ne sw 15-12n-3w ¶1½-378		6510
Blackgold, Noll 1, sw se sw 15-12n-3w	lcn.	abd.
Rose White 1, sw se sw 15-12n-3w	lcn.	abd.
Davis, Ragan 1, sw nw se 15-12n-3w	lcn.	abd.
Fairfax Oil, Russell 2, se se sw 15-12n-3w	lcn.	abd.
Anderson-Prichard, Cooke 1, ne nw ne 22-12n-3w ¶11½-18,713		6474
Barnsdall Oil, Hopps 1, nw sw ne 22-12n-3w 693		6459
Phillips Pet., Beam 1, nw sw se 22-12n-3w 8655		6509
Sawyer 3, se sw ne 22-12n-3w ¶14-13,159		6494
Sawyer 6, nw ne ne 22-12n-3w ¶7-8898		6472
Warr 1, nw se se 22-12n-3w ¶24-16,145		6522
British-American, Elliott Place 1, sw sw nw 23-12n-3w ¶14-14-796		6488
Sunray, State Land 1, ne ne ne 27-12n-3w ¶10-11,264		6515
Marathon Oil, Dahl 11 (Acct. 1) nw sw se 31-14n-3w 3780		6717
Dahl 2 (Acct. 2) se ne sw 31-14n-3w ¶16½-2378		6711
OKMULGEE COUNTY—		
Wilcom, Bockler 1, ne sw ne 22-13n-12e (pb 1570) ¶7/10		2192
Fleck Drlg, Adams 1-A, ne sw sw 12-14n-14e	*	1404
Burns, Ashley 1-B, nw ne ne 30-14n-14e	10	1276
Pine, Bruner 1, se ne ne 4-15n-14e	*	2215
Adkins, Clayton 1-A, cel ne 36-16n-11e	15	1759
OSAGE COUNTY—		
Link Oil, 8, se nw ne 8-22n-12e	15	1859
Nodel & Lebow, 1-A, se se nw 23-23n-7e	*	2609
Tidewater Oil, Graves 4, ne se ne 9-24n-7e	*	2713
Graves 5, nw se ne 9-24n-7e	207	2614
Graves 6, ne sw ne 9-24n-7e	322	2614
Lewis & Continental, 12, se ne se 9-24n-7e	238	2568
Lewis, Continental & Texas, Barker 2, nw sw nw 10-24n-7e	lcn.	abd.
Lewis Prod. 5, sw nw sw 10-24n-7e	186	2566
Sinclair Prairie Oil, 8, sw nw se 9-25n-6e	298	2834
Carter et al, 4, ne se nw 15-24n-6e	1064	2841
Kewanee Oil, Hale 5, ne ne se 27-26n-6e	459	2925
PAYNE COUNTY—		
Denver Prod. et al, Pratt 1, nw nw nw 20-18n-3e	*	4175
PONTOTOC COUNTY—		
Magnolia, Reeves 1, sw ne ne 35-2n-6e (pb 4513) ¶½	272	4573
Mid-Continent, McKoy 2, se se nw 20-2n-7e ¶1¾	1748	4272
Boettcher, Burris 3, csl n½ nw nw 27-2n-7e ¶4½	1649	
Magnolia, Metropolitan Life 5, se nw ne 27-2n-7e ¶2¼	3282	4280
Metropolitan Life 6, nw ne ne 27-2n-7e ¶2½	2635	4275
Metropolitan Life 9, nw ne sw 27-2n-7e ¶5	299	3535
Metropolitan Life 10, nw nw ne 27-2n-7e ¶2	2948	4295
Perrine, Roberts 1, nw nw sw 31-5n-5e	30	2165
Morris et al, Call 5, nw nw nw 22-5n-8e	*	778
POTTAWATOMIE COUNTY—		
Alexander, Mitchell 1, nw ne ne 3-6n-4e (pb 4035)	150	4223
Phillips, Duff 2, nw nw sw 10-7n-4e (pb 3580)	68	3998
SEMINOLE COUNTY—		
Sinclair Prairie, Harjo 3, ne nw se 12-5n-7e	756	4237
Sinclair Prairie, Mathis 1-A, sw se ne 12-5n-7e	912	4164
Mid-Continent, Bruner 4, ne se se 11-7n-6e (otd 4292)	35	4372
Vierson, Betsy Burden 1-A, cne sw 23-8n-6e	*	2505
Commercial Drlg., Grisso 1-A, cne sw 23-9n-6e	*	4090
Superior Oil, Grisso 2, ne se nw 35-9n-6e	7	4176
Exchange Drlg., Mills 1, nw ne se 19-9n-7e ¶2	1260	3476
Wood Oil, Harber 1, se ne nw 19-9n-7e	130	3478
Creekmore Wolf, Campbell 1, sw nw nw 20-9n-7e	351	3468
Walker, Able 1, se se ne 10-9n-8e	*	1833
Amerada-Stanolind et al, Wyant 1, nw sw ne 3-10n-5e	*	4715
Gulf Oil, Fife 1, cw½ ne nw 11-10n-6e	595	4183
Carter, Aldridge 3, cn½ se nw 35-11n-6e	358	4151
STEPHENS COUNTY—		
Raizen Bros., Crosbie 7, sw sw sw 23-1s-5w	2	387
George Pace, Ada Duncan 4, nw nw ne 28-2s-7w	5	1290
TILLMAN COUNTY—		
Gulf Oil, Boucher 5, nw se sw 32-1n-19w (pb 2665)	39	2813
TULSA COUNTY—		
Suppies, Drew 3, ne ne sw 34-19n-12e	*	1336
Childs, McKee 2-A, cwl ne ne 17-19n-10e	*	2080
Johnson O. & R., Stebbins 2, se sw se 30-19n-10e	16	2279

*Failures; †Junked; ¶Million cu. ft. gas.

New Developments

OKFUSKEE STRIKE AND JESSE EXTENSION IN LIMELIGHT

Tulsa.—J. K. Gardner, Ray Vincent et al's Musgrove 1, SEc NE 13-13-10e, near the Okmulgee line in Okfuskee County, which sprayed oil with 15,000,000 cubic feet of gas from the Dutcher sand at 2565 feet late last week, proved the Double OK pool for oil. It is a western offset to another well on the same structure which is making gas from the same formation. Operators deepened this test to 2592 feet and the well flowed 80 barrels per hour. The well was shut in for lack of tankage.

Amerada Petroleum Corporation and Stanolind Oil & Gas Company's Newall 1, SE SE NW 3-10-5e, in the Stout area of Seminole County, was completed for 205 barrels of oil and 600 barrels of water through the casing.

The same interest's Brunken 1, SWc NE 32-23-4w, north of the Garber field of Garfield County, which penetrated the second Wilcox sand without a show, is to be carried to the Arbuckle lime.

Amerada Petroleum Corporation's Pratt 1, SE SE 29-19n-5e, northeast Payne County, cleaned itself after striking 13,000,000 cubic feet of gas at a total depth of 3685 feet. Pressure was 1190 pounds per square inch. Operators will recement the seven-inch casing and continue drilling. The same owner's Simpson 1, NE NE 9-10n-5e, same county, topped the Wilcox sand 4673 feet and the hole filled 1100 feet with oil and mud.

Jesse Extension

Sunray Oil Company's Shumard 1, NE SW SE 2-1n-7e, the north extension of the Jesse pool of Pontotoc County, which had 250 feet of oil in the hole at 4541 feet in the Bromide sand, was deepened after flowing 127 barrels in 24 hours. From 4549 feet the well swabbed 165 barrels in 14 hours, then began flowing at the rate of 1250 barrels in 21 hours. This well is the most important location in the area in defining the probability of extending the pool with Bromide production. The McLish sand has apparently been proven productive only over a comparatively small area, considerably less than at first estimated, and not to the location of Shumard 1, the Jesse Townsite well.

To the south of this well and one location north of the field discovery, Continental Oil Company's McCarty 2, NE SE NW 12-1n-7e, which showed six percent water while being drilled in, has been given a potential of 4223 barrels at 4745 feet. During potential test the quantity of water decreased to three percent. Three wildcats, on the general Jesse trend, are drilling to the southeast of the new pool. At present they are at the 2500-foot mark.

Carter Oil Company's Diamond 1 C S½ NW NE 36-11-6e, in the Keokuk pool of Seminole County, completed for 135 barrels on a six-hour test. Total depth was 4162 feet.

Wood Oil Company's Selma 1, SEc NW SW 2-6n-6e, a wildcat location in Seminole County, northeast of the Konawa pool and south of the Little River production, is showing for oil at 2427 feet with only two feet of penetration into the sand.

The three major tests in Coal County are well under way. Sinclair Prairie Oil Company's Culver 1, NE NE SW 16-1n-8e, is drilling around 1400 feet. Continental Oil Company's King 1, NE SW NE 26-1n-8e, started up after spudding. Carter Oil Company's James 1, SW NW SW 35-1s-8e, the fartherest south of the three wildcats, was drilling late in the week below 1400 feet.

Sinclair Prairie Oil Company is starting a drilling campaign in the shallow area of Nowata County centering in the Delaware pool, 33-27-16e. A total of fourteen wells are scheduled to be started.

Bay Oil Company's Mohler 1, a location along the east edge of the old Burbank pool at 23-26-6e, Osage County, filled 850 feet with oil from 2940 feet early in the week. After a shot between 2893 and 2973 feet the hole bridged and Thursday afternoon the crew was cleaning out. From indications previous to the shot, this well means further extension of the stringer production which is continually increasing in importance and area.

Winona Oil Company's Wolf 1, SWc SE 18-7-8e, south of the Fish pool in eastern Seminole County, picked up a stray sandy lime below the Wapanucke and was gauged for 53,750,000 cubic feet of gas. Hole was bottomed at 3084 feet, 18 feet in the big pay.

WATER FLOOD LAKE

Tulsa.—A group of Tulsa producers operating in the shallow Nowata pool, Nowata County, which recently requested permission from the state to create a $150,000 lake for water flooding purposes, has been asked to file a supplementary application in greater detail than the original.

Big Creek, tributary to the Verdigris, was selected as the impounding source. Site of the reservoir was selected 11 miles northeast of Nowata. Stored water is to be used solely for the purpose of flooding the sands of the producing zone.

Success Continues

TWO NEW FIELDS OPENED, TWO IMPORTANT EXTENSIONS

KANSAS

WEEKLY STAFF REPORT

Wichita.—Rice and Ellis Counties of Kansas continue to lead the state in oil news with both counting new pools. Stafford and Barton Counties each contributed important extensions of proven areas.

The importance of Shell Petroleum Corporation's gasser in central Rice County, was increased with Simpson Oil Company's Wiggins 1, CSL N½ NE 35-19-8w, which is located on the same structure, and which made 38,000,000 cubic feet of gas from the Siliceous lime at 3305 feet. Wiggins 1 topped the lime at 3277 feet and drilled to 3305 feet. Continued drilling increased the flow to 41,000,000 cubic feet. Both this well and Shell Petroleum Corporation's test are to be drilled deeper.

Shell Petroleum Corporation's Maughlin 1, NE NW SE 11-20-8w, a wildcat test southeast of Lyons, Rice County, that proved for 36,000,000 cubic feet of gas from the dolomite has shut down the cable tool string after developing a fishing job at 3294 feet, while attempting to deepen. Rotary equipment is being moved to the well and the fish will be drilled by. Shell Petroleum Corporation and others' Hafferman 1, SE¼ 6-19-9w, east of Rice County's Silica pool, which proved a new production spot last week from the siliceous at 3205 feet made 960 barrels of water-free oil on a 17½-hour pumping test.

Beardmore and Ainsworth Brother's

Fuller 1, SWc SE 23-18-7w, a wildcat test northeast of Lyons, Rice County, is drilling below 3300 feet after repairs to rig and equipment. Nearest production is in the Galt sector. This well will probably penetrate the Siliceous lime in the next few days. Darby Petroleum Corporation gave another extension well to the Hauschild pool of Rice County, when Johnson 3, NW¼ 10-21-7w, flowed 2440 barrels on a 24-hour test from the chat at 3383 feet. This well extends proven area to the west of the north end of the field.

Jones Brothers Drilling Company's Solomon 1, SEc SW 28-11-19w, opened a new pool southeast of Hays, Ellis County. Oil started into the hole from the Siliceous lime at 3638 feet after the cement plug was drilled, and rose to the 2440-foot level in 30 minutes. Operators were unable to bail below 1800 feet as the oil continued to flow into the casing.

Twin Drilling Company's Copeland 1, NEc SW 26-14-19w, a wildcat location southwest of Hays, Ellis County, pumped 410 barrels from the basal formation at 3710 feet. The well has not been acidized. This location may be on the trend of the active Ruder pool, to the south and east. To the northeast of Hays, Simar Oil Company and Harris and Haun, Inc., proved another pool as indicated a week ago, with Schmeidler 1, SE SW 3-14-17w, Ellis County wildcat that was acidized in the Oswald at 3361 feet. After a pumping test during which the well made 674 barrels, it began flowing by heads. Other acreage in the vicinity is taken and offsets may soon be announced.

Ruder pool is taking the position of being the most important strike in Ellis County. A number of extension wells have greatly increased the production area, most of the completions having large initial production. The three latest completions have been in excess of 1000 barrels from the Siliceous lime at an average depth of 3500 feet. This pool was opened in 1935 and is tending to the north and west.

Bridgeport Machinery Company and associate's Madden 2, southeast of the Ruder pool of Ellis County NE NW NW 26-15-18w, may mean an extension of this area to the southeast. The Oswald lime was topped at 3260 feet and a 5-inch liner was set at 3331 at the top of the pay zone which was drilled to a total depth of 3341 feet. The hole filled 1100 feet with oil in 13 hours and operators are preparing to run tubing. During a swabbing test, oil continued to enter the casing at an estimated rate of 125 barrels per hour.

Tom Johnson et al's Johnson 1, SW NW 33-17-1w, McPherson County wildcat southeast of Roxbury, is reported checking high as compared with a number of southwest locations. The Roxbury area is on a trend that includes a series of six structures lying in a general northeast and southwest line, and is at the northern extremity of the sector, miles from any production. Chat was topped at 2683 feet, with no oil showing. Upon being deepened to 2753 feet, operators developed a hole of water, to condemn northeast extension of the trend.

W. C. McBride, Inc. Siemens 1, which extended the Haury field of McPherson County a half mile northeast, pumped 504 barrels on 12-hour state potential test. Production is being obtained from the chat at 3253 to 3350 feet and is holding up to a 42-barrel per hour average.

East of Moundridge in McPherson County operators are experiencing difficulty in obtaining drilling water, most of which is being pumped from streams of the vicinity. Three wells are drilling in the Braber field at this time, and although none has shut down, operations are likely to be halted if relief is not obtained within a short time.

In Graham County, Vickers Petroleum Company's Hutton 1, NE SE 9-8-22w, which showed for oil in the upper Lansing was deepened to water in the same formation. It is being carried on down.

Charles Coates, Simpson and Noble Drilling Company's Hiss 1, an old well in 31-20-13w, Barton County, had a flow through 8-inch casing from the Lansing as operators prepared to run tubing. The flow did not hold up, although 1125 barrels of oil were recovered in 12 hours.

George Hinkle, Fred Jones, et al's Myers 1, SW SW NE 18-17-10w, a wildcat in Ellsworth County picked up the Siliceous lime top at 3296 feet and filled 3100 feet with oil from 3310. This well is between four producing areas in the northwest corner of the county and may mean a connection between two or more of these zones.

Kingman County has a semi-wildcat location that will be followed with interest. McBride, Inc., has made a location in SW NE SE 16-27-7w, an offset to a chat well that produced for a while and was then abandoned. Olson Drilling Company's Prather 1, C SE 18-27-8w, a wildcat location northwest of Kingman was coring late in the week from 4347 to 4351 feet in the Viola lime.

KANSAS
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BARTON COUNTY—		
Sinclair Prairie, Isern 2, ne se sw 25-19s-11w (pb 3317)	256	3326
Continental, Risse 12, sw nw se 36-19s-11w	1842	3292
Risse 13, nw nw se 36-19s-11w	1720	3294
BUTLER COUNTY—		
Western Kansas O. & R., Furman 2, ne sw sw 8-23s-4e	51	2090
Vickers Pet. McCramer "A" 3, sw se se 35-24s-3e	169	2727
Sheldon & Wixon, Augustine 2, cwl ne 1-25s-3e (pb 2695)	268	2716
Western Kansas O. & R., Marshall-King 2, sw sw nw 11-28s-6e	lcn.	abd.
Armer-Brandt et al, Ramp 1, sw sw ne 15-28s-7e	195	2707
COWLEY COUNTY—		
Benedum & Trees, Carson 1, sw sw nw 8-30s-4e	*	3275
Shawver, Joslin 3, nw sw sw 11-30s-4e	40	2780
Trees Oil, Harris 1, se ne sw 19-30s-4e	*	2892
Palmer, Davis 2, se se sw 35-30s-4e.	*	3190
EDWARDS COUNTY—		
Margay Oil, Bemis 2, ne se se 16-11s-17w	1347	3375
ELLIS COUNTY—		
Palmer et al, Madden 1, nw nw sw 9-15s-18w	1011	3571
ELLSWORTH COUNTY—		
Empire et al, Jansen "B" 1, se se sw 34-17s-8w	806	3258
FINNEY COUNTY—		
Lone Star State Drlg., Hamlin 1, sw sw ne 31-24s-34w	¶1	2700
GREENWOOD COUNTY—		
Shull Drlg., Boles 1-A, sw sw nw 15-24s-13e	*	1650
McPHERSON COUNTY—		
Continental et al, Graber 3, nw nw se 29-21s-1w	464	3317
RENO COUNTY—		
Stanolind-Amerada, Welch 1, cse nw 9-24s-4w	267	3372
McPherson Drlg. & Derby, Schuechzer 2, cn½ s½ sw 17-24s-4w	1515	3381
RICE COUNTY—		
Continental et al, Ainsworth 2, nw nw ne 25-18s-8w	1341	3169
Slick et al, Moran 3, se sw nw 4-18s-10w	1053	3263
Habiger 1, se ne ne 5-18s-10w	1121	3273
Shell et al, Sherman "B" 1, sw sw ne 16-19s-9w	1301	3226
Davis et al, Dueser 9, se sw sw 31-19s-10w	786	3298
Shell, McFarland 5, nw ne nw 7-20s-9w	1160	3278
Rosespring et al, Young 1, sw sw se 8-20s-9w	576	3291
Gulf Oil, Hartle 6, se ne nw 15-20s-9w	506	3241
Empire, Burns 3, sw sw sw 15-20s-10w	996	3380
Douglas et al, Houschild 1, ne ne nw 15-21s-7w (otd 3370)	3997	3393
RUSH COUNTY—		
John McCole et al, Roth 1, nw nw sw 21-16s-18w	lcn.	abd.
RUSSELL COUNTY—		
Empire, Miller C 2, se se se 31, 14s-13w	lcn.	abd.
Darby & Continental, Letsch 1, se ne nw 34-14s-13w (pb 2880)	419	3265
Gulf Oil, Ehrlich 1, sw sw nw 1-14s-15w (otd 3093) (pb 3078)	1059	3099
Empire, Crawford 4, se sw sw 2-14n-15w	757	3300
Hartman & Blair, Sullivan 2, se ne se 2-14s-15w	477	3091
Darby, Dumler 3, sw nw nw 11-14s-15w	624	3287
Wakefield & Armor, Hall 2, nw sw se 36-14s-15w	lcn.	abd.
Brouk & Bailey, Gallairt 2, sw nw se 34-15s-12w	lcn.	abd.
SEDGWICK COUNTY—		
Gulf Oil, Hamant 1, sw sw nw 14-26s-2e (otd 3166)	35	3301
STEVENS COUNTY—		
United Prod. Co., Christopher 2, cnw 13-33s-39w	¶10½	2652
SUMNER COUNTY—		
Orcutt & Stewart, Newton 1, se se se 21-30s-2e	*	550
Slick, Pryor & Lockhart, Murphy 1, ne ne se 32-31s-1w	708	3686
Shell, Emerich 14, sw sw ne 14-32s-2e (pb 2844)	210	2852
Davis et al, Wenrich 2, nw nw sw 23-32s-2e	2'4	2975
Ault, Loflin 1, ne ne sw 22-13s-2w	lcn.	abd.
Pure Oil, Wintershield 17, se ne sw 6-24s-17e	113	1711
WOODSON COUNTY—		
Sheedy, Abbott 1, ne ne se 16-25s-14e	*	1555
Lester et al, Weidie 1, ne ne se 17-25s-14e	*	1565
Sheedy et al, Tipton 2-A, ne nw nw 28-25s-14e	600	1534

*Failures; †Junked; ¶Million cu. ft. gas.

32 NEW STARTS

Wichita.—A total of 32 first reports were made in Kansas the week past, with Rice and Reno counties leading with four reports were made from each county. Ellis, Russell, Sumner and Woodson counties each reported three starts and McPherson County 2. Barton, Butler, Clark, Cowley, Greenwood, Harvey, Meade, Norton, Saline and Stevens each reported one new location.

There were 50 completions for the state, 35 being oil wells for an initial production of 28,004 barrels. Two wells were completed for gas, totaling 11,500,000 cubic feet. Seven tests resulted in dry holes and there were six abandoned locations.

Talco Edge Test

SALT WATER SHOW HALTS WORK PENDING FURTHER TEST

WEEKLY STAFF REPORT

Talco, Texas. — Expansion of exploratory work to the southwest of the Talco field and further into Franklin County was marking time the past week pending a production test through casing by Earl Bateman Drilling Company and Al Rovenger's E. L. Phillips 1, which showed salt water when formation tester was used in Paluxy zone at 4282-4361 feet. Situated about 1½ miles south by west of nearest production, this outpost logged an aggregate of about 35 feet of oil saturation in sandy-lime before reaching the water level, tentatively placed at 4357-4361 feet. Seven-inch pipe will be landed on top of the Paluxy after plugging back about 18 feet, with fair prospects of making a small well. It is located in the northwest corner of the north 38½ acres of 77-acre tract, Wm. Bridwell Survey, and more than one mile south of the projected course of the fault plane. In drilling to 4361 feet, or 4003 feet below sea level, the owners attained the maximum depth reached by any of the more favorably situated producing wells in the field proper.

Phillips 1 is the first test within or near the field to encounter saturated oil formation then reach bottom hole water. It proves conclusively that wells drilled down dip from the faulted structure will encounter salt water at a higher sub-sea depth than those spotted closer to the fault plane. Phillips 1 logged top of Georgetown lime at 3510 feet, or 3152 feet below sea level, while Lucey Petroleum Company et al's Crawford 2, the nearest producer in Franklin County, topped the same lime marker at 3468 feet, or 3098 feet sub-sea. The latter was completed recently at 3930 feet below sea level for a potential flow of 62 barrels per hour through tubing.

Tide Water Oil Company became the third major to share in production at Talco through the completion of C. M. Carr 1, east offset to the discovery tract in Titus County, with a natural flow of 54 barrels of pipe line oil hourly through seven-inch pipe from Paluxy at 4163-4340 feet, with an elevation of 358 feet. A short distance south of the above property, Nivla Oil Corporation's J. N. Kelley 1, NEc of 15.76-acre lease, J. Salmon Survey, A-506, showed very little oil and swabbed dry when tested in Paluxy at 4228-4308 feet, with an elevation of 348 feet. Later test at 4328 feet, or 3980 feet sub-sea, credited the well with 2500 feet of oil in the hole. Top of Georgetown lime was logged at 3640 feet. This well was considered to be favorably situated for flowing production, but geological markers reveal it is structurally low. It may serve to narrow the width of the field to the south of the fault. Jule Alford, Trustee, et al's J. F. Fry 2, near NEc of 27.43-acre lease, I. P. Stern Survey, and about a mile south of Nivla Oil Corporation's small well, logged top of Georgetown lime at 3613 feet, or 3280 feet sub-sea, according to reports, and was drilling hard lime near the 3950-foot level.

W. P. Luse et al's W. T. Sullivan 1, NWc of four-acre lease adjoining Talco townsite on the south, failed to recover drill pipe lost at 3748 feet in hard lime topped at 3440 feet, with an elevation of 371 feet, and has skidded rig 24 feet to the east. This is the first junked hole for the area.

J. B. Bond and J. Z. Werby's T. J. Sanders 2, near NEc of east 42.3-acre of 84.6-acre tract, W. F. Dyer Survey, Franklin County, recorded a high structural position in logging top of Georgetown lime at 3424 feet, or 3065 feet sub-sea, and was drilling in lime at 4110 feet, according to late reports.

R. C. Horne, Dallas, et al's Barton 1, located on three-acre lease, and south of Talco, logged top of Georgetown lime at 3386 feet, with an elevation of 361 feet, and was drilling below 3650 feet. Humble Oil & Refining Company recently filed suit in 98th District Court at Austin to have the Texas Railroad Commission's orders that authorized this drilling permit set aside. The former previously filed a similar suit against B. C. Morrison, Dallas, and the commission to prevent the drilling of Coney 1 on 1¾-acre lease, C. Payne Survey.

In the townsite of Talco, Albert M. Peairs and B. C. Morrison's Lewis Sanders 1, C Lot 1, Block 30, is preparing to make production test in Paluxy at 4188, 4242 feet, with an elevation of 371 feet. Seven-inch pipe was cemented at 4167 feet. Jones & Shelburne, Inc.'s Hazelwood 1, NEc of 10-acre lease, I. P. Stern Survey, cemented 5½-inch pipe at 4273 feet after coring Paluxy zone at 4285-4351 feet, with an elevation of 342 feet. Hollingsworth Drilling Company's A. O. Brown 1, center of 52/100-acre lease, west ½ block 41, Talco townsite, cemented 7-inch casing at 4173 feet preparatory to making a production test in Paluxy at 4170-4347 feet. It has an elevation of 377 feet.

Independent Crude Oil Trading Company, Dallas, has acquired a 25-year exclusive franchise to install gathering system and transport oil produced within the corporate limits of Talco. The company is to lay four-inch lines through the alleyways, and pay the city $5 for each street crossing and $2.50 for each alley trespassed. This franchise will safeguard the city from a duplication of lines and usual periodic disturbance of paving that is anticipated, while on the other hand the franchise holder will be the only direct transportation outlet for crude produced within the city limits. The company has posted a gathering tariff of 7½ cents per barrel, and an additional levy of 2½ cents per barrel for loading oil aboard tank cars. It is the only active purchaser of crude in the field, paying 60 cents per barrel at the well, or the same as that posted by Humble Oil & Refining Company in settling royalty accounts.

Rusk Revival

TEST TWO MILES FROM PRODUCER REPORTS SHOW

Tyler, Texas.—New interest has been injected into the Rusk pool, Cherokee County Woodbine sand area uncovered in June, 1934, following the preliminary showing made by T. J. Wood et al's J. E. Huggins 1, NWc 80-acre lease, Levi Jordan Survey. Formation tester used in Woodbine section at 5141-5186 feet yielded a natural flow of high gravity oil and water. Owners have cemented casing at 5180 feet to try for a commercial producer. Location is two miles southwest of nearest production in the pool, which has yielded about 150,000 barrels of oil from three wells. Failures drilled to the south and southeast of the discovery tract developed jointly by J. T. Wood and Young served to diminish interest in the area, which commanded considerable attention when the first strike was made.

Wildcat activity in the East Texas Woodbine sand belt largely centers around projected deep tests that are seeking production in the Paluxy and lower Trinity zones. In Hopkins County, Dilworth Hager, W. P. Luse and Leon Russ' J. E. Worsham 1, A. O. Wetmore Survey, is rated as the best bet for Paluxy production, owing to structure being of the same general type and on a southwest trend from Talco. Drilling was under way late last week near the 4000-foot level in lime, which was topped at about 3600 feet, with an elevation of 440 feet. Owners expect to reach the Paluxy zone between 4350 and 4450 feet.

Pure Oil Company's W. H. Faulkner 1, Wm. Elliott Survey, Mount Enterprise area, southeastern Rusk County, was drilling in basal Trinity zone at 7280 feet with no evidence of oil or gas. Tide Water Oil Company and Seaboard Oil Corporation's J. N. Edens 15, second Trinity test at Cayuga, was drilling below 4400 feet, and will cement 9⅝-inch pipe on top of the Georgetown lime. Gulf Oil Corpora-

tion's Mary J. Ross 1, Robt. Erwin Survey, situated south of the Camp Hill field, Anderson County, was drilling in hard lime at 6230 feet.

Work is scheduled to be resumed on the Lamar County deep test of J. A. Forester et al on the J. F. Woodward 18¾-acre tract, about 1½ miles east by south of Minter, after being idle in Trinity series at 4516 feet since April. Anhydrite was logged at 3735-4105 feet, with an elevation of 402 feet. Plans are to deepen to the Red Beds section of the lower Trinity. In Red River County, J. S. Abercrombie and Harrison Oil Company's Southern Pine Lumber Company 1-T, D. D. Bruton Survey, is likely to be abandoned as a junked hole at 2292 feet, where a section of drill pipe was lost. Favorable oil saturation at 2101-2118 feet yielded salt water with a scum of oil.

In Houston County, Ellison, McBride et al's J. E. Bean 1, Eli Steadman Survey, near Grapeland, logged Austin chalk at 5610-5963 feet, and was coring near the 6000-foot level late last week.

Based upon results of geophysical survey conducted by Stanolind Oil & Gas Company, a hot lease and royalty play recently took place within and around the town of Peerless in northwestern Hopkins County. Large tracts commanded prices ranging up to $60 per acre cash bonuses for commercial leases, while independents paid up to $200 per acre for small sites. Texola Land Corporation, New York, has been given permit to drill in Hunt County on the General American Life Insurance Company 203.8-acre tract, J. Yeary Survey, block 104.

RODESSA RUNS

Shreveport.—Daily average pipe line runs from the Rodessa field last week totaled 54,811 barrels as compared to 56,431 barrels the week before. Runs to refineries last week totaled 1800 barrels. The total daily average distribution was 57,329 barrels, the total daily production was 60,573 barrels, and the total daily average to storage was 3244 barrels.

Pipe line runs by companies last week follow: Arkansas Pipe Line Company, 5222 barrels; East Texas Pipe Line Company. 3359; Gulf Pipe Line Company, 12,222; Magnolia Pipe Line Company, 12,321; Standard Pipe Line Company, 19,349; The Leonard Company (Shoreline). 1199; and The Texas Pipe Line Company, 1139.

Runs to refineries were: Eastern Texas, 186; Griswold, 1355; North Caddo, 259; total to refineries, 1800. Tank car shipments last week follow: Griswold, 481; Jas. B. Berry & Son, 237; total, 781.

SEEK TENDER

Austin.—The East Texas Refining Company has filed suit in 53rd District Court seeking an injunction which would require the Texas Railroad Commission to approve a tender for 55,000 barrels of Rodessa crude.

The petition filed alleges that the oil is now in storage in Texas and that the Texas Commission has refused to approve tender which would allow the movement of the oil.

Hearing on the case is set for June 29.

EAST TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
JOINER AREA—		
Big Indian Oil Synd., W. R. Wolford 18 (40-ac)	6500	3711
A. F. Bullard Oil Co. (was H. H. Patterson), Bradford 2 (27.34-ac).	10	3609
Ed. DeArman et al, O. Crook 1 (26.16-ac)	450	3672
Farrell & Co., W. H. Hammett 9 (100-ac)	200	3693
W. H. Gant-Garvin-Wegener, Goldberry 7 (253.45-ac)	190	3587
Harry Hanbury et al, J. H. Sharp-Marathon 2-C (112.32-ac)	4000	3679
J. H. Sharp-Marathon 4-C (112.32-ac)	4000	3718
Humble, W. A. Mulliken 20 (166.4-ac)	3000	3760
T. M. Wooley 8 (55-ac)	7000	3682
E. C. Laster, Inc.-Retsal Drl. Co., H. W. Coates 4 (54.85-ac)	325	3606
R. J. McMurrey et al, H. Roberson 11 (136.8-ac)	4200	3812
Magnolia, A. T. Tyiska 10 (111-ac).	5200	3844
Marathon Oil Co., M. C. DeGuerin 19 (160.7-ac)	7000	3692
Sinclair Prairie, Bradford 6 (35½-ac)	300	3698
Stearns & Graham, P. Hart 1 (17½-ac)	†	3305
Sun Oil Co., O. W. Knight 29 (272.9-ac)	1200	3624
Texas Canadian Oil Corp., F. A. Keel 7 (63-ac)	108	3682
Annie Kelly 1-B (107.76-ac)	*	3780
KILGORE AREA—		
Cook Drl. Co., S. E. Mayfield 5 (33½-ac)	30	3620
Friedman Oil Corp.-Swindler, Mayfield 11 (123-ac)	6000	3733
Grace Oil Co. (was Shulman), S. P. Hughey 2 (172-ac), blk 170	120	3532
Gulf Oil Corp., S. Hilburn 87-B (110.17-ac)	5200	3577
W. V. Hardin et al, N. Peterson 3 (104-ac)	1250	3607
Iowa Payne Oil Co., W. B. Walker 2-B (8-ac)	8400	3673
Killen-Solley & Geo. I. McGee, Ben Laird-McGee 1 (2 2/3-ac)	400	3685
Lone Pine Oil Co. (Carter-Jones), Clary 2 (6.7-ac)	240	3546
Magnolia, Sam Carr 11 (67.62-ac).	8800	3469
Murko O & Roy Co., H. P. Hale 2 (95½-ac)	240	3567
Overton Ref. Co.-R. E. Moore, Rufus Jones 2 (4.14-ac)	500	3661
Sinclair Prairie, A. A. King 58-A (366 7-ac)	7100	3515
A. A. King 59-A (366.7-ac)	6500	3510
Stewart Oil Co., M. Holt 6 (103.73-ac)	140	3526
Sun-Seaboard Oil Corp., Pentecost 14 (131½-ac)	8500	3603
H. E. Thomas, Killan & Solley, Thomas-Ben Laird 1 (2 2/3-ac).	200	3686
LONGVIEW AREA—		
Arkansas F.O. Co., J. A. Whittaker 15 (75.52-ac)	9000	3540
Cox & Jake Hamon, R. Lacy 8 (50-ac)	7600	3575
Danciger Oil Refineries, Inc., Stinchcomb 7 (87½-ac)	7300	3747
Empire O&R Co., J. W. Akin 16 (100-ac)	8000	3571
Gen'l American Oil Co., J. W. Free 3-B (21.22-ac)	1500	3713
Gilcrease Oil Co., A. Fenton 3 (17-ac)	9000	3638
Humble, J. K. Edwards 33 (271.6-ac)	4000	3648
Magnolia, Clem Jones 8 (65-ac)	8400	3620
Nathan Oil Co. (was M. H. Wilson), Victory 3-C (14.12-ac)	2500	3610
Victory 4-C (14.12-ac)	2500	3591
B. F. Phillips et al, W. H. York 1-B (4-ac)	360	3595
P. F. Rutledge-C. W. Boller, P. Todd 7 (155-ac)	3600	3695
Selby O&G Co.-Lewis Prod. Co., Snavely 25-A (214½-ac)	4000	3589
Snavely 33-B (361.2-ac)	5000	3588
Stanolind, McKinley 43-B (84-ac)	5600	3666
McKinley 45-B (57.91-ac)	6000	3596
Stanolind-Tide Water-Conoco, Flewellen 18-C (400-ac)	3600	3617
Sun Oil Co., E. C. Shoults 12 (90.28-ac)	7000	3638
Tide Water-Stanolind, Flewellen 46-B (374-ac)	4000	3750
Ray Uhlman-H. H. Drl. Co., J. W. Medlin 1 (27.4-ac)	225	3735
ANDERSON COUNTY (Cayuga Field)—		
Cayuga O. & G. Co., A. G. Williams 3 (93.4-ac)	1200	4084
Tide Water-Seaboard, M. H. Sullenberger 5 (363.6-ac)	¶60	4046
ANDERSON COUNTY (Long Lake Field)—		
Tide Water-Seaboard Oil Corp., Dave Reagan 1 (50-ac)	800	5312
Texas Co., W. P. B. Woodhouse 1 (406.13-ac)	2500	5318
TITUS COUNTY (Talco Field)—		
Tide Water, C M. Carr 1 (75-ac)	1000	4340
VAN ZANDT COUNTY (Van Field)—		
Humble, R. S. Blake 19 (201.4-ac).	11,000	2949
Pure, R. A. Howell 5 (25-ac)	10,100	2969
Texas Co., R. V. White 4 (25-ac).	10,000	2933
WILDCATS		
LAMAR COUNTY—		
Barrett-Saloman & Brooks (North Texas Synd.), Haynes-McCuistion 1 (25-ac)	*	1871
UPSHUR COUNTY—		
J. K. Wadley et al, E. L. Gillespie 1-C	*	3757

*Failures; †Junked; ¶Million cu. ft. gas.

CAYUGA HEARING

Austin.—Hearing on high gas-oil ratio wells in the Cayuga field, Anderson and Henderson counties, has been postponed by the Texas Railroad Commission.

The hearing was called last week when operators protested that enforcement of the 2,000/1 ratio cut oil production for some wells to four or five barrels per day. There was no evidence available, however, save on one well, and Commission engineers were unwilling to base an order on this data.

They announced that the hearing would be postponed until a bottom hole pressure test and a gas-oil ratio test of each well in the field had been made.

Meanwhile operators were informed that they would be permitted to produce on a 10,000/1 total displacement factor pending institution of orders based on full evidence.

TEXAS PERMITS UP

Austin.—The Railroad Commission approved last week permits for the drilling of 395 wells in Texas, 20 more than were allowed the week before.

East Central Texas showed the largest gain with 107 new locations. This included 71 permits for wells in Titus County, 14 in Franklin County, and 10 in Cooke County.

East Texas reported 65 locations with 27 in Rusk County, 23 in Gregg County, 13 in Upshur County, and two in Smith County.

In Southwest Texas there were 65 permits of which 32 were for new wells in Duval County. The Gulf Coast reported 49 permits, with 13 in Nueces County and 10 in San Patricio County.

North Texas operators filed 52 locations, including 17 in Young County, 12 in Archer County, and 12 in Wichita County. There were 16 locations from West Central Texas.

From West Texas 28 locations were filed, and there were 13 in the Panhandle.

WILDCAT SHOWS

Winkler County test has cored good saturation

San Angelo.—C. M. (Dad) Joiner et al's R. M. Evans-Cowden 1, C NW¼ Section 46, block 73, PSL Survey, northeastern Winkler County wildcat, cored 10-foot section of oil saturated lime topped at 4258 feet, or 1055 feet below sea level, and in deepening to 4310 feet the last five feet also showed saturation. It will be deepened before attempting a production test. This wildcat is about six miles due west of a shut-in wildcat gasser with a small spray of oil, situated in northwestern Ector County, and 10 miles northwest of Wm. Dunning et al's Cummins 1, which recently afforded an important extension for the Goldsmith field, Ector County. The latter was deepened the past week 10 feet to 4261 feet, and is credited with having increased its flow to 30 barrels hourly. Dunning is starting work on Cummins 1-B, located 880 feet to the north of his producer, and has taken out permits to drill a total of five wells on each of these 160-acre leases.

REVISE TEXAS ORDER

Austin.—The Texas Railroad Commission has revived its last statewide proration order, fixing June 21 as the effective date. There were no other changes in the order. The original order fixed the effective date on June 20.

HENDERSON HEARING

Austin.—At a hearing before the Texas Railroad Commission last week Atlantic Oil Producing Company requested a 20-acre spacing rule for wells in the new Henderson field in Winkler County.

Because some wells have already been drilled on a 10-acre pattern they ask that the commission allow one well on each 20-acre unit located within 330 feet of lease lines.

This program met with opposition from commission officials who objected to any plan which would not result in a uniform drilling pattern.

The operators urged this plan, pointing out that the field was only about one mile wide and would thus have room for about four locations across the axis of the field.

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O'HERN ALLOWABLE

Austin.—Operators from the O'Hern field in Duval County have requested the Texas Railroad Commission to increase the allowable for that field by 6,000 barrels daily.

At a hearing held at Austin last week the commission was advised that this oil of 30.9 gravity has characteristics which make it more valuable than the usual Mirando crude.

An eastern market has been developed, and a loading rack built in the field so that the oil will be moved directly by train to the Corpus Christi Refinery.

WEST CENTRAL TEXAS Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CALLAHAN COUNTY—		
Beams Prod. & Dev. Co, I. N. Jackson 1-D	*	1279
Canyon O. & G. Co., Tom Bryant 1.	*	2901
Leland Fikes et al, I. N. Jackson 3.	30	1000
W. J. Murry et al, H. W. Ross 1...	20	1201
Wittmer O. & G. Properties, I. N. Jackson 1	*	1285
COLEMAN COUNTY—		
B C. Mann et al, E. L. Knox 1...	*	2244
EASTLAND COUNTY—		
Anderson & Drury Oil Corp., J. W. Gage 1	12	3063
States Oil Corp., Bristol Corp. 1...	*	1360
McCULLOCH COUNTY—		
G. E. Poulter et al, P. C. Dutton 2.	*	848
PALO PINTO COUNTY—		
F. Browning et al, G. T. Scudder 1.	*	1580
Palo Pinto Oil Corp., Strawn Coal Co. 14	¶1¼	3069
SHACKELFORD COUNTY—	15	
Dean Bros., W P. Newell 2.....¶3	25	1445
Hoffman & Page Co., Morris-Buie 20	12	1596
A. Housley et al, F. C. Rife 1.....	*	1702
T. Mercer et al, J. H. Grimes 1...	*	1660
Moutray Oil Co. & King, W. P. Newell 2	¶10	1443
Owen & James, Morris-Buie 3.....	159	1613
Putman Supply Co., Morris-Buie 1-B	95	1603
Roeser-Pendleton, Inc.-Humble, Dawson-Conway 2	¶2½	1271
Morris-Buie 5, sec 191.....	297	1611
St. Marys O. & G Co., Webb & Dows 1-A	*	2183
Tannehill et al, J. B. Mathews 31...	*	1136
STEPHENS COUNTY—		
Homestead O. & G. Co., North Texas Farms Inc. 1.....	*	3611
Lone Star Gas Co., Warren 5.....	3	1700
TARRANT COUNTY—		
E. E. Haffanier et al, Dr. W. H. Davis 1	*	1893

*Failures; †Junked; ¶Million cu. ft. gas.

Wildcat Producers

FIRST GAINES COUNTY WELL SWABS LOW GRAVITY OIL

WEEKLY STAFF REPORT

MIDLAND.

FULFILLING earlier predictions, Landreth Production Corporation's Kirk 1, south central Gaines County wildcat, uncovered the first oil production for the county June 26 by swabbing at rate of about 75 barrels of low gravity pipe line oil daily from Permian lime horizon at 4820 feet. Best saturation was logged at 4796-4806 feet. On preliminary swabbing test the well averaged three barrels hourly, with gas volume estimated at 100,000 feet daily. The oil tests about 24 gravity (corrected), and is unusually low for deep lime production in West Texas. Plans call for acidization of the well and making of a temporary completion prior to July 1, in order to comply with contract terms governing dry hole contributions made by other lease owners in the area. It will then be deepened, as a much larger producer will be needed to attract a pipe line connection.

Production test given Landreth Production Corporation's W. H. Kirk 1, which is located in the southwest corner of Section 22, Block A-21, PSL Survey, failed to yield oil or gas when swabbed down through 2½-inch tubing with the hole bottomed at 4788 feet, or 1517 feet below sea level. This was disappointing to the 12 companies that purchased lease protection, or contributed dry hole money toward drilling the test, as favorable saturation was registered at four separate horizons in cores taken between 4703 feet and 4788 feet. However, the production found in drilling to 4820 feet, or 1549 feet sub-sea, indicates that a new area will be thrown open for development in Gaines County. It is nine miles northwest of nearest production in the Means field, Andrews County, and 11 miles south by east of a junked gasser near Seminole. The latter is bottomed at 4910 feet, or 1588 feet sub-sea.

Humble Oil & Refining Company is preparing to start a wildcat 8 miles northwest of Kirk 1, having made location several weeks ago for Wales Eubank 1, C SW SW Section 6, Block AX, PSL Survey.

Yoakum County's two active wildcats were making good progress the past week. In the southwest portion of the county, E. R. Bahan, R. R. Rhodes and J. E. Fitz-Patrick's Alice Henard 1, C SW Section 367, Block D, John H. Gibson Survey, was drilling below 2600 feet. Top of anhydrite was logged at 2279 feet, with an elevation of 3691 feet. Elliott Roosevelt and Lou G. Stogner's Roosevelt-Googins 1, near SEc NE Section 215, Block D, John H. Gibson Survey, was drilling near the 2300-foot level.

The Waddell field, northern Crane County, provided the largest of 37 producers credited to West Texas the past week through completion of Gulf Oil Corporation's M. F. Henderson 5, near SWc SE SE Section 3, Block B-23, PSL Survey, with a potential flow of 14,148 barrels of oil after using 5000 gallons of acid in dolomite lime at 3526 feet. The well flowed 340 barrels per hour through open 7-inch casing natural. It responded to acid treatment with an open flow of 610 barrels the first hour and 569 barrels the second hour. The field is prorated on a basis of well potential, and all wells are acidized upon completion, regardless of their size since it is advantageous from a proration allowable standpoint for each operator to attain the maximum potential rating. Four additional tests are under way in this area. Gulf Oil Corporation's W. N. Waddell 14 is drilling below 3350 feet, and Magnolia Petroleum Company's W. P. Edwards 6 has progressed beyond the 2500-foot level. Tide Water Oil Company's W. P. Edwards 1, SWc NW Section 2, situated several locations north of the prolific area, has cemented 7-inch pipe at 3187 feet. Steve Currie et al's TP Land Trust 1, located ¾-mile to the northeast and near a small producer, was drilling below 1300 feet.

Fourth for Henderson

The Henderson pool, Winkler County's most prolific area, scored its fourth big producer and a minor extension to the north through the completion of Humble Oil & Refining Company's J. B. Walton 2-C, SWc NE SW Section 34, Block 74, PSL Survey, with a natural flow of 2032 barrels of pipe line oil through 2½-inch tubing in 18 hours from dolomite lime at 3005-3080 feet. Shell Petroleum Corporation's R. A. Leck 1, NEc SE Section 32, Block 74, PSL Survey, situated 1½ miles west by south of the above producer, tested dry at 3061 feet, and was drilling below the 3100-foot level, according to late reports. R. H. Henderson et al's R. A. Leck-Gulf 1, located in the northeast corner of the same section, is reported to be marking time near the 850-foot level to

TEXAS PANHANDLE

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CARSON COUNTY—		
Texoma Nat'l Gas Co., J. J. Crutchfield 2-T	¶50.4	2767
GRAY COUNTY—		
Dyke Oil Co., L. C. McConnell 3	383	3291
Kewanee O&G Co., Smith-Rest 20	729	3250
Magnolia, C. S. Barrett 3	317	3280
The Texas Co., C. S. Barrett 3	450	3240
HUTCHINSON COUNTY—		
Holmes, Holmes & Newblock, J. J. Perkins 1, sec 34	*	2956
Stanolind, Pitcher 6-B	434	3115
R. C. Ware 9-C	480	3100
MOORE COUNTY—		
Anderson-Kerr Pet. Co., C. Strunk-Gulf 1	¶66.5	3566
Shamrock O&G Co., C. R. Jones-Conoco 1	48	3416
WHEELER COUNTY—		
Lone Star Gas Co., Farren 1	¶32.9	2448
Palmer et al, C. Smith 1	¶72.6	1985
Skelly Oil Co., Johnson 19	270	2525

*Failures; †Junked; ¶Million cu. ft. gas.

WEST TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ANDREWS COUNTY (Means Field)—		
Humble, R. M. Means 7	726	4536
CRANE COUNTY (Waddell Field)—		
Gulf Oil Corp., M. F. Henderson 5	14,148	3526
ECTOR COUNTY (North Cowden Field)—		
R. G. Jennings et al, B. H. Blakeney 1	¶5	4224
Stanolind, J. M. Cowden 31	469	4274
Tide Water-Atlantic, TP Land Trust 2	778	4222
FISHER COUNTY—	557	
Gen. Crude Oil Co., Wm. Flannigan 8	7	3847
FISHER COUNTY (Rhotan Field)—		
Tide Water-Merry Bros. & Perini, Inc., M. Howard 3	275	3701
HOWARD COUNTY—		
D. C. Reed, C. J. Schmid et al, Walter Pike 1	*	3399
Sinclair Prairie, Dodge 39	422	2775
LOVING COUNTY (Wheat Field)—		
California Co., J. G. Allen 7	113	4331
PECOS COUNTY (Taylor-Link Field)—		
W. E. Prod. Co., University-California 1	*	1642
PECOS COUNTY (Torborg Field)—		
Cardinal Oil Co., Tippett 39-E	12	516
PECOS COUNTY (Yates Field)—		
Marathon, I. G. Yates 47-A	2496	1207
UPTON COUNTY (McCamey Field)—		
J. W. Ellis et al, J. W. Robbins 4A	567	2161
Hope Pet. Co., Lane 5	400	2258
TP Coal & Oil Co., J. F. Lane 12-C	175	2391
M. F. Turner & Dan Easter, Ed. Hughes-Stanolind 1	262	2414
WARD COUNTY—		
Atlantic O. P. Co., Johnson 23	500	2547
California Co., Walling-Costley 4	658	2525
L. H. Choate et al, Bennett-Pure 2.	20	2590
FHE Oil Co., C. Killough-Atlantic 1	180	2410
L. Richter 1-B	912	2570
Gulf Oil Corp., O'Brien 69	121	2795
O'Brien 70	480	2764
F. G. Leidecker et al, Archenhold-California 2-B	433	3041
Richardson Oils, Inc., O'Brien 11	250	3090
Rio Bravo Oil Co., D. Olcott 7	519	2530
TP Coal & Oil Co., M. Barker 6	¶10	30 2410
M. Barker 7	756	2400
H. James 15	736	2490
Turman Oil Co., Sloan-Llano 6	224	2492
WINKLER COUNTY (Halley Field)—		
Skelly Oil Co., S. M. Halley 11	219	2888
WINKLER COUNTY (Henderson Field)—		
Humble, J. B. Walton 2-C	6000	3080
WINKLER COUNTY (Sayre Field)—		
Atlantic O. P. Co.-J. D. Collett, Hendrick 7-J	1029	3030
Empire O. & R. Co., L. Daugherty 3	937	3030
Humble, N. R. Colby 3-A	767	3015
Magnolia, J. B. Walton 24	317	2912
Mid-Continent Pet. Corp., Walton 2.	986	2980
R. A. Westbrook et al, Hendrick 4	462	2992

*Failures; †Junked; ¶Million cu. ft. gas.

await the outcome of Shell Petroleum Corporation's test, which is credited with being about 300 feet low on structure. Atlantic Oil Producing Company and Wahlenmaier Petroleum Corporation's Fred Leck 1-B, NWc Section 3, Block 26, PSL Survey, is due to be the next completion in the prolific area, but has been held up at 2958 feet to repair a break on 7-inch pipe near the 1400-foot level. This pipe was landed at 2655 feet, with 225 sacks of cement.

R. L. York and O. C. Harper, Midland operators who have shared in several oil strikes in Ector County, are reported to have assembled acreage for the drilling of two wildcats in the county. One test is reported to be contemplated for Section 10, Block 44, T&P Ry. Survey, T-3-S, on fee held by Texas Pacific Land Trust, while the other drilling block centers upon Section 26, Block 45, T&P Ry. Survey, T-1-S.

NORTH TEXAS Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ARCHER COUNTY—		
L. T. Burns et al, G. O. Prideaux 2	*	792
Cato Bros., J. H. Turbeville 3, blk 62	*	1070
Consolidated Oil Co., Portwood 1-CC, sec 2411	75	1437
Consolidated-Primrose-Deep O. D. Co., Wilson 5, sec 76	500	2237
Deep Oil Dev. Co.-Lindsay Drl. Co., Wilson 15, Lse. 4, sec 76	1032	2228
Deep O.D. Co.-Primrose Pet. Co., Wilson 1, sec 76	400	2234
Huggins Oil Co., Ford 13	10	1003
Regal Oil Co., L. F. Wilson 1-B	20	899
E. J. Stump et al, L. F. Wilson 7-A-B, sec 1-	30	1523
BAYLOR COUNTY—		
W. P. Morris et al, E. T. Porter 1	†	1335
CLAY COUNTY—		
Diamond-C Oil Co., L. S. Wright 1, sec 2632	*	846
W. H. Kerbow et al, Fred Wines 1, sec 1	*	1106
COOKE COUNTY—		
F. W. Merrick, Inc., L. K. Bell 1	*	2325
J. W. Hess 13	5	1577
Mills & Carey, F. M. Bezner 1	†	534
Seitz, Comegys & Seitz, Inc., Field-Bowers 1	*	3342
R. W. Trew 10-A	384	1170
R. W. Trew 11-A	204	1248
R. W. Trew 12-A	166	1224
B. F. Thompson et al, Trubenback 1	*	710
Vindicator Oil Co., Walterscheid 6	25	798
JACK COUNTY—		
Engineers Oil Prop., M. B. Cook 1	225	2974
Hammon & Meredith, F. H. Rhodes 1	30	2447
Panhandle Ref. Co., G. P. Klinglesmith 1	*	3300
J. S. Yell et al, W. H. Smith 1	4	306
MONTAGUE COUNTY—		
Conoco, Howard 29	34	1394
Lesh & McCall, Cunningham 5-A	44	956
The Texas Co., W. W. Jones 7	100	1790
WICHITA COUNTY—		
Bridges & Kent, F. P. Warren 1	10	227
L. T. Burns et al, Waggoner Bros. 12, blk 19	*	1543
WILBARGER COUNTY—		
Lido Oil Co., Waggoner Est. 11, sec 50	30	2728
Regal Oil Co., Waggoner Est. 1, sec 65	*	1500
YOUNG COUNTY—		
Paul Atchley et al, Benson 3, sec 1392	15	948
Leon Gaines et al, J. K. Jeffery 2, sec 49	*	847
B. C. Gilmore et al, Prideaux 2-A, blk 16	7	515
Hurley et al, R. D. Webb 1, blk 11	*	622
A. C. Parks et al, J. J. Bavousett 1	*	625
Pet. Producers Co., C. E. Luton 1	35	671
Solo Oil Co., O. W. Stowe 10, sec 2	*	1094
The Texas Co., Belknap 5, sec 23	79	675

*Failures; †Junked; ¶Million cu. ft. gas.

Deep Frio Sand

6300-FOOT HORIZON AT SAXET PRODUCES OIL

WEEKLY STAFF REPORT

Corpus Christi.—Another producing sand, the deepest in the field, was uncovered in the Saxet area, Nueces County by Conroe Drilling Company's Rand Morgan 1-B, which topped sand at 6293 feet in the Frio series. The well is located in BS & F Survey No. 403, and is in the southwestern portion of the producing area. A drill stem test at 6295-99 feet developed 500 pounds pressure and 15 feet of 54.5 gravity oil in five minutes; a drill stem test from 6299-6308 feet showed 200 pounds pressure and 15 feet of high gravity oil in 9 minutes. A third test at 6300-18 feet showed 450 pounds pressure with 125 feet of mud and salt water in six minutes.

An extension of more than one-half mile to the northwest was being provided for the 5700-foot sand by Coastland Oil Company and Keystone Royalties Company's Page Brothers 1, Share 2, Franks subdivision. After testing salt water in the 5800-foot sand, the well was carried to 5931 feet, plugged back, and sidetracked. It cored sand at 5741-58 feet in sidetracked hole, and a drill stem test with the seat at 5740 feet developed 450 pounds pressure and 22 fourbles of gasoline and mud in five minutes. Casing has been set on bottom and will be gun perforated for completion.

Bennett Extends Field

Mills Bennett proved an extension of nearly one mile to the west of the Clarkwood sector of the same field when it found production in the 4100-foot sand. Gas sand was found at 4092-99 feet and oil at 4100-10 feet. A drill stem test at 4098-4106 feet developed 650 feet of pipe line oil and 35 pounds pressure in 6 minutes. It is drilling ahead to lower sands, its main goal being the 5800-foot horizon.

The 5800-foot sand development is the main project in Saxet field at this time, a number of excellent wells being completed. Offsetting requirements as well as lease obligations make an unusually brisk campaign obvious. This sand was defined on the west by the failure of V. L. Blanchard's T. H. Isensee 1, block 8, which has been abandoned at 5910 feet. The sand also was defined in a northerly direction by Southern Minerals Corporation's Mastin 2, which showed 18 fourbles of salt water in 10 minutes at 5836-50 feet. It will complete as a distillate well in the 5700-foot sand.

Benedum and Tree's Mrs. E. H. Welder 2, 3½ miles northeast of Sinton in San Patricio County, plugged back from 7019 feet to 5720 feet, where it is showing considerable oil. Tubing is stuck and attempts are being made to loosen it before resuming swabbing. Welder 3, located 933 feet southwest of this well, has been abandoned at 6140 feet after showing salt water in upper sands.

Plymouth Oil Company's Mrs. E. H. Welder 50-C in the Plymouth field, San Patricio County, is being converted into a deep test to explore sands below the present producing horizons in the main field. The present deepest production in the main field is 5650 feet.

A drill stem test at 5330-51 feet developed 550 pounds pressure with 170 feet of mud and oil in 19 minutes. The hole was reamed down and a second drill stem test from 5340-51 feet developed 550 feet of pipe line oil and some pressure in 12 minutes. Casing is being set for a production test.

Bentonville Enlarged

An extension of nearly two miles to the north was indicated for the Bentonville field, Jim Wells County, with La Jita Corporation finding saturation in the 5300-foot sand in W. E. Pope 1, SW Section 20. The well showed gas with an oil odor in oil sand at 5330-40 feet and oil sand at 5340-51 feet.

Stanolind Oil & Gas Company's Raney 1, Section 16, west offset to the discovery well of the Bentoville field, has been completed as a producer at 5354½-75 feet, second for the field. It flowed 192 barrels of oil in 24 hours through 5/32 choke and showed 575 pounds tubing pressure and 700 pounds casing pressure.

A new sand for the Bentonville field or a 2½-mile southwest extension to the gas production in the King Ranch field was provided when Texon Royalty Company and Lucey Petroleum Corporation's Leona Dodd 1, northwest offset to the Bentonville discovery, was completed as a gasser through perforations around 4005 feet. The well drilled to 6500 feet, but plugged back. Pressures are 1625 pounds equalized when shut in, or 1425 pounds on tubing and 1500 pounds on casing with the well flowing.

Continental Oil Company's Austin (Vandenberg) 1, one mile north of the other heaving shale wells on the Seadrift prospect, Calhoun County, is drilling at 6417 feet, apparently in heaving shale. It has not yet set its first long string of casing, penetrating the formation much deeper

than the other wells before setting pipe.

Greta sand production seems possible for the Heyser field of Calhoun County, recently opened by the Humble Oil & Refining Company and the Plymouth Oil Company. Mrs. E. H. Welder 2, three-fourths of a mile southwest of the discovery well, encountered a sand at 4830 feet in the Heterostegina zone. The log was as follows: gas sand 4830-45, shale 4845-50 feet, sand 4850-65 feet, cap 4865-67 feet, oil sand 4867-74 feet, cap 4874-76 feet and sand 4876-90 feet with oil odor. A drill stem test was made at 4851-59 feet which developed 400 pounds pressure in five minutes, and a drill stem test from 4874-90 feet showed 200 feet of oily mud and 2000 feet of salt water. It is going ahead to the 5300-foot sand producing in the main field.

Steinberger Petroleum Corporation has set 1185 feet of 13-inch casing and is drilling ahead in Druschell 1, in the southeastern edge of Edna gas field. It is to drill to 7000 feet or oil production.

VOSS DRAWS RIGS

Discovery responsible for several new tests

Beeville.—Several rigs are expected to be active in the newly discovered Voss Field, Bee County, within the next few days as a result of the completion of Devonian Oil Company's C. A. Voss 1, S. May Survey, 2½ miles southwest of Ray field. The well flowed 98 barrels of oil per day through one-eighth-inch choke showing a tubing pressure of 250 pounds and a casing pressure of 450 pounds, the Pettus sand being at 4015-19 feet.

This well was drilled by Howeth and Swiger, but was turned to Devonian Oil Company upon completion. Several pieces of acreage, including the 80-acre drill site, were included in the transaction.

Humble Oil & Refining Company holds the majority of acreage in the vicinity, having farmed out the acreage upon which the discovery well was drilled. Dirks Brothers, R. B. Swiger, California Company, Tide Water Oil Company, and others hold close in acreage.

Dirks Brothers' M. M. Bergel, NE SW E. C. White Survey, has been spudded. It is one-half mile southwest of Voss field.

Zeni Oil Corporation's M. Lutenbacher 3, block 25, Goliad town tract, just south of Goliad in Goliad County, showed a light gas blow with a minor oil show in sand at 4135-50 feet, determined to be the base of the Vicksburg. The well is drilling ahead at 4620 feet.

SET RAY HEARING

Austin.—A hearing on an extension of the Ray field in Bee County has been scheduled by the Texas Railroad Commission for July 7 at Austin.

The hearing will be held to determine whether a new field has been brought in through the completion of C. A. Voss number one. Field rules for the Ray pool will be followed by operators pending the issuance of a special order.

BOOM EXPECTED

Laredo district wildcats to cause much drilling

Laredo.—Although field work has been slowed to the lowest level in a year, several apparently successful wildcats are expected to bring development to a boom level. Testing continued with final completion of these wells expected early in the week.

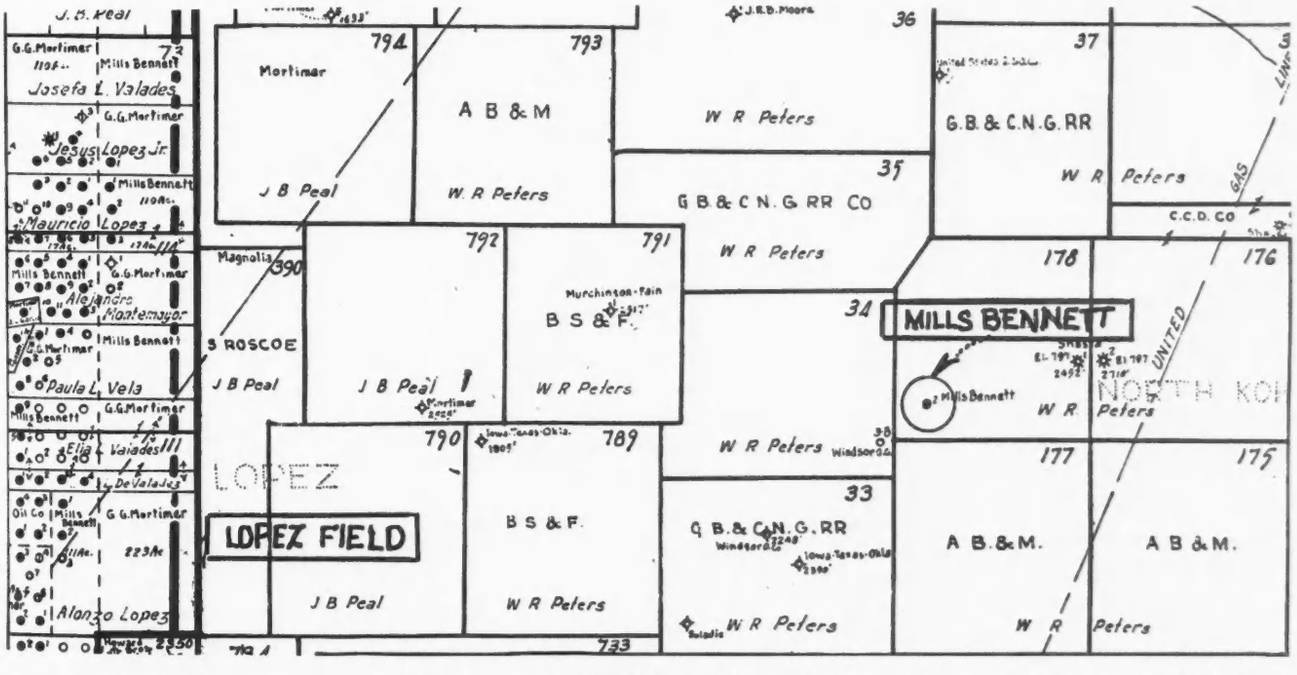
C. G. Glasscock's Milano Land and Gardens Company 2, northeast corner Section 88, showed considerable oil in the Mirando sand to indicate a new field four miles southeast of Loma Novia and 5 miles northeast of Hoffman. Should it open a field, it definitely will open a new trend for development. After running steel line measurement, the total depth has been corrected to 3293 feet with sand and shale section at 3272-93 feet. Casing was set at 3272 feet.

The well continued to swab late in the week with only a slight show of oil.

Rogers and Rogers' R. S. Depena 1, Elmesquite Grant, Share 4, in the extreme southwestern corner of Duval County, was showing for some sort of well, making a little 43 gravity oil via swabbing method from sand at 2850-62 feet. Casing is set at 2845 feet.

Conservative Oil Company's Duval County Ranch Company 1, SE NW Section 51, two miles southeast of Colemena field, drilled to 1553 feet in the Cole series, set casing on bottom, drilled out plug to 1548 feet, and perforated at 1532½-36 feet. It swabbed salt water with a little oil and is drilling ahead to lower sands.

Dulce Oil Company and Harvey & Henderson's E. R. Hagist 1, Section 271, one mile west of Seven Sisters field, has been abandoned at 2601 feet after showing a little oil, and finally



A conservative development campaign is in prospect for the Peters Field, located four miles east of the Lopez Field, Duval County. First oil production was established in this field by Mills Bennett's W. R. Peters 2, an oil producer in the Mirando sand. Map by Porter Regenold, Corpus Christi.

salt water in the Government Wells sand at 2416-33 feet. Parr Oil Company's J. F. Welder 8, southwest corner of an 80-acre lease in Section 383, failed to develop production in the Government Wells sand and is going ahead. The well is in the southwestern portion of Seven Sisters field.

Efforts to extend the Hoffman field, also Duval County, failed in W. C. McBride, Incorporated's C. A. B. Cueller 1, Section 123. M. D. Mastin's D. Ruiz, nearly two miles west of the field, tested through perforations at several levels above 3003 feet, but did not find commercial production.

Stanolind Oil and Gas Company's Ira G. Yates 5, several locations southeast of the Labb Gas production, tested salt water at 2490 feet and is shut down for orders.

Humble Oil & Refining Company is attempting to extend the Rhode field, McMullen County, about 1½ miles northeast. Location has been made for Rhode 2, SE SW SW Section 17.

BALCONES FAULT

Test holds interest as it cores Edwards lime

San Antonio.—Bay Oil Corporation's National Bank of Commerce 1, 12 miles southwest of the Pearsall Austin chalk production, and in Zavalla County, holds the Balcones fault interest as it cores the top of the Edwards lime. The well, in Section 43, AB & M Survey, topped the Austin chalk at 5717 feet, elevation 700 feet, and has had a series of showings below this depth in the chalk and Buda lime.

The well went to 6585 feet, but failed to find production in the Edwards lime. It has been plugged back to 6250 feet for a production test.

Termo Oil Company of Texas's Arp 1, located one mile west of the Pearsall production, but in Frio County, topped the chalk at 5502 feet.

After drilling to 5870 feet in hard chalk, preparations are being made to run casing. It has had considerable saturation from the top of the chalk to near the total depth.

Farther up on the fault line, and in Guadalupe County, considerable work is anticipated for the Zoboroski-South Darst Creek district, where a number of excellent pumping wells have been completed from depths ranging from 2000 to 2500 feet.

ANDERSON RULES

Austin.—The Railroad Commission has issued field rules for the new Anderson field in Cooke County which provides that wells shall be spaced in the center of five acre units.

This will provide for locations 233 feet from lease or boundary lines and wells 466 feet apart.

More than 70 percent of the world's motor vehicles are owned and operated in the United States, where motor fuel is less than one-fourth as costly as in some foreign countries.

SOUTH TEXAS
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BEE COUNTY—		
Dirks Bros., R. C. Harris Est 3B, J. L. Dugat sur (Dirks)	990	3924
Lonnie Glasscock, Holzmark 1, 660 ft swl, 2350 ft sel of J. A. York sur.	*	4428
Howeth & Swiger, C. A. Voss 1, 330 ft swl, 990 ft nwl of Samuel May sur, ab 230 (Voss)	392	4019
Fred Haworth, Jr., J. E. Copeland 1, 330 ft nl & wl of lse in Obed Marshall sur	*	4252
Sunburst Oil Co., G. A. Ray 1, Blanchard sur, (West Tuleta)	*	3929
BEXAR COUNTY—		
Armoil Prod. & Wm. Stewart, G. H. Vogt 2, Stephen Jett sur No. 53 (Von Ormy)	3	712
Joe Deupree, S. G. Winter 1, 330 ft nl & el of 100-ac tr, in Fernando Rodriguez sur	*	1853
H. J. Moore, Mrs. L. Eisenhauser, 1113 ft el, 507 ft nl of 80-ac tr in Gertrude Roderiguez sur	*	1020
CALDWELL COUNTY—		
Burwyn Oil Corp, S. J. Barber 1, Squire Damon sur (Dale)	*	2125
Louis Crouch et al, J. J. Davis 1, A. Floyd sur, (Salt Flats)	60	2680
DUVAL COUNTY—		
Atlantic Prod. Co. & Darby Pet. Co., J. F. Welder Heirs 2-G, sec 102 (Seven Sisters) 2401-18	¶2	2435
Bridwell Oil Co., Wm. Hubberd 1-D, sec 73, (Loma Novia)	349	2551
Wm. Hubberd, sec 71 (Loma Novia)	290	2795
Wm. Hubberd, sec 75 (Loma Novia)	320	2587
Darby Pet. Corp., J. F. Welder heirs sec 102 (Seven Sisters), perf 2418-33	288	2436
Dulce Oil Co. & Harvey & Henderson, 990 ft sl, & el of sur 271..	*	2601
Highland Oil Co., Wm. Hubberd 15, sec 75, (Loma Novia)	115	2590
M. C. Hubberd 32, sec 72 (Loma Novia)	318	2775
Humble O. & R. Co., A. H. Badgley, sec 307, (Seven Sisters)	288	2528
M. C. Hubberd 38B, sec 72, (Loma Novia)	720	2715
M. C. Hubberd 43B, sec 72, (Loma Novia)	915	2737
Magnolia, Duval County Ranch Co. 5, sec 95 (Piedre Lumbre)	490	1960
C. W. Hahl 40, sec 67 (Loma Novia)	578	2619
C. W. Hahl, 41, sec 67 (Loma Novia)	288	2678
W. C. McBride, Inc., C. & A. B. Cuellar 1, 3800 ft swl, 3500 ft nwl of sur 123 (Hoffman)	*	2965
Pan American Prod. Co., J. F. Welder heirs, 4-a, sec 381 (Seven Sisters)	*	2452
J. F. Welder heir 2C, sec 383 (Seven Sisters)	436	....
Parr Oil Co., J. F. Welder heirs 4, sec 383, (Seven Sisters)	220	2453
Plymouth Oil Co., Sophie Hoffman 2B, sec 118, (Hoffman)	280	2916
Santa Clara Oil Co., J. F. Welder heirs, sec 383 (Seven Sisters)	694	2481
Standard of Kansas, W. K. Hoffman 6, sec 118, (Hoffman)	176	2868
The Texas Co., Bishop Cattle Co. 15, sec 59, (Loma Novia)	120	2537
GOLIAD COUNTY—		
Jane Oil Co., Runge State Bank 2, G. B. Myers sur 26 (N. Pettus)	794	3717
Magnolia Pet. Co., E. G. Gillett 1, J. Gomez sur (N. Pettus)	265	3680
Sun Oil Co., W. T. Scarborough 6, E. Talley sur (N. Pettus)	96	3653
GUADALUPE COUNTY—		
Louis Crouch, Frank Zoboroski 1, J. D. Clements sur, 150 ft el, 800 ft nl of 70-ac tr (Zoboroski) owwo, old td 2722, pb 2210 ft.	35	2722
W. J. Walton et al, Antone Zoboroski 5, J. D. Clements sur (Zoboroski)	75	2206
HIDALGO COUNTY—		
G. A. Clements et al, F. B. Guerra 2, sh 254, porc 39 of Juris of Camargo (Samfordyce); perf 2784-86	40	2792
Weekley Oil Corp, Mrs. Lula George 2, sh 13, porc 41 (Samfordyce) ..	*	2784
G. W. Wheeler, Felipe Farias 2, sh 255, porc 39, Puris of Reynosa (Samfordyce) perf 2832-51	175	3200
Yates-McCurry, Southland Dev. Co., 180 ft wl, 240 ft nl, lot 13, blk 24, Alamo subd	*	lcn.
JIM WELLS COUNTY—		
Stanolind O. & G. Co., E. W. Raney 1, sec 16, King Ranch subd (Bentonville)	750	5387
Texon Royalty & Lucey Pet. Corp., Leona Dodd 1, sec 15, King Farm lots (Bentonville), perf in 4000-ft sand)	¶15	6500
McMULLEN COUNTY—		
Ranier Oil Co., E. R. Hagist 1, 330 ft sl & wl of se¼ of sur 25	*	2506
MEDINA COUNTY—		
R. S. Bynum, Jr., M. V. Melton 1, 155 ft nl, 1837 ft el, 160-ac tr, sur 14½	*	982
N. C. Johnson, R. T. Taylor 1, 2520 ft wl, 945 ft sl, 320-ac tr sur 136 (Taylor)	4	1249
NUECES COUNTY—		
V. L. Blanchard, T. H. Isensee 1, 330 ft nl & el of blk 8, R. Shaeffer Lands subd	*	5910
D. H. Hawn, Swanter 1, Villareal Gr (Saxet Heights)	352	4088
A. F. Holliday et al, J. Griffith, Stevens sur 406 (Saxet)	760	5830
Houston Oil Co., Rand Morgan 11, sec 7, range 5 (Saxet)	700	4866
Pedernal Oil Co., C. R. Priour 2, blk 16, Oak Park Add (Saxet Heights)	575	4075
H. G. Spiller, Harmon-Flood 1, blks 4 & 5, Ellendale Gardens 3 (Saxet) perf 4078-82	540	4120
W. F. Stone, Trustee, J. H. Dryer 1, blk 8, Villa Gardens Subd (Saxet Heights), perf 40	1152	4083½
Taylor Ref. Co., C. C. Golf & Country Club 2, Kinney tr (Saxet Heights), perf 4063-65	150	4247
Taylor Ref. Co. 1, Villareal gr (Saxet Heights)	455	4078
Texon Royalty Corp., G. H. McElroy 1, T. Gallagher sur (Saxet)	300	4415
W. A. R. Oil Co., W. S. Hutchins 1, G. Frank Subd (Saxet)	*	5900
REFUGIO COUNTY—		
Quintana Pet. Co., Fannie Heard 2, T. H. Webb sur (N. Tomoconnor)	2666	5900
SAN PATRICIO COUNTY—		
Benedum & Trees, E. H. Welder 3, 2259 ft el, 940 ft sl of sec 19, Welder Ranch subd	*	6140
Sun Oil Co., J. M. Hunt 7, lot 5, sec 34, Taft Farm lands subd (Plymouth)	450	5645
STARR COUNTY—		
Killam & Staggs, S. B. Ricaby, 150 ft sl, 200 ft wl Ricaby tr, porc 83	*	2503
VICTORIA COUNTY—		
Barnsdall et al, Pickering-Roos 4, lot 3, S. A. & M. G. sur 4, ab 371 (Placedo)	850	4750
Commonwealth O. & G. Co., F. E. Parencia, Brownson sur, ab 382 (Placedo)	295	4776
Harrison & Abercrombie, T. O. Sturdevant 3, Brownson sur, ab 382 (Placedo)	615	4764
WEBB COUNTY—		
Mills Bennett, Maria L. Lopez 10, sec 112 (Lopez)	565	2224
Maria L. Lopez 11, sec 112 (Lopez)	515	2237
E. L. Valdez 6, sec 11 (Lopez)	525	2212
G. G. Mortimer, Maria Lopez 12, sec 112 (Lopez)	432	2251
John J. O'Hern, S. Benavides 2-A, blk 459, Hale subd, Arispe gr (Cole)	125	2860
H. M. Reed, S. Benavides 3, blk 317, Hale subd, Arispe gr (Cole)	575	2894
Superior Oil Co., W. C. Billings 8, sec 109 (Lopez)	720	2250
Texla Oil Corp., S. Benavides 4-D, blk 387, Hale subd, Arispe gr (Cole)	205	2905
ZAPATA COUNTY—		
Upchurch & McKay, Haynes 3, sec 7, Haynes subd, Comitas gr (Comitas)	45	856

*Failures; †Junked; ¶Million cu. ft. gas.

The first petroleum refinery in the United States was built in 1855 at Pittsburgh, Pa., by Samuel Kier. Its capacity was 5 barrels daily.

A petroleum refinery becomes obsolete in five years and usually must be modernized or rebuilt.

Wildcats Show

FOUR TESTS ARE CENTER OF INTEREST IN COASTAL AREA

WEEKLY STAFF REPORT

Houston.—Four promising wildcats, and a Brazoria County failure, along with interesting field developments held the interest of operators in the Texas Sector of the Gulf Coast the past week.

Sun Oil Company's Craig 1, on the east flank of Hawkinsville dome, Matagorda County, was running screen June 26 preparatory to completing in the Miocene formation where it showed the previous week as a commercial producer. During the past week, the operators swabbed the hole and with each lift recovered 1500 feet of oil. It is thought that due to sand conditions screen will be set. The operators originally perforated the casing from 5150 to 5175 feet with 40 shots, and the well came in flowing 16 barrels of oil per hour and then sanded up. But after pulling the drill stem it was found to contain 23 stands of salt water. Cement was pumped into the hole and after swabbing during the week Craig 1 would not flow.

Sun Oil Company's Hughes 1, at Green's Lake in Galveston County was preparing to set screen. The hole was swabbed three times and Hughes 1 came in at the rate of 134 barrels in four hours and then quit. The oil was flowing through the tubing through a three eighths-inch choke. Operators believe that the hole either sanded or mudded up.

On Angleton Prospect in Brazoria County, Texas Gulf Producing Company's Sparks 1, which held the interest of operators for several weeks was finally abandoned the past week after testing salt water in the Miocene formation. Five-inch casing was perforated from 5675 to 5705 feet and after swabbing for some time salt water was recovered without any oil or gas. The previous week the well showed 20 ohms and 100 millivolts porosity on an electrical logging device.

Five South Houston Completions

Five completions were reported in the South Houston field, Harris County, during the past week. Stanolind Oil & Gas Company gets credit for four of the completions, while Smith & McDannald received credit for completing one.

Three of the completions were on the northwest flank of the field and extended it slightly in that direction.

NEW DEEP SAND

Completed Samfordyce well is producer

McAllen.—A second and deeper sand for the Samfordyce field, Hidalgo County, was definitely established last week when G. W. Wheeler's Felipe Farias 2 was completed as an oil producer through perforations at 2832-51 feet, for an estimated output from five to eight barrels per hour through small choke.

The well is in Share 255, Porcion 39, and is on the north flank of the field.

Heretofore, all of the attempts to complete in the deeper sand, fully 100 feet below the regular horizon, have resulted in gas wells or salt water tests.

J. T. Barlow et al's M. F. de Chapa 1, Tract 252, Porcion 39, is milling out casing at 2800 feet after drilling to 3200 feet. It showed for a big gasser spraying oil through perforations at 2951-66 feet, which likely is an even different sand than the one producing in the Wheeler well.

Gulf States Oil Company's J. C. Engelman 3, Mestenas area, Hidalgo County, has been completed as a gasser spraying distillate through perforations at 6688-96 feet. Four miles southeast of this field, Quintana Petroleum Corporation continues to cut out drill stem in J. C. Engelman 1, which is at 8904 feet.

Union Sulphur Company's three deep wells in Mercedes field, Hidalgo County, failed to develop production in the 7500 foot sand and are attempting to rework.

FOUR FIELDS NAMED

Houston.—The Nomenclature committee of the Houston Geological Society has named three new discoveries in the Gulf Coast and changed the name of one field. Shell Petroleum Corporation's Convent prospect in St. James Parish, which was discovered as a salt dome, has been changed to Hester dome. The Reeves prospect in Allen Parish, which was discovered by Humble Oil & Refining Company's Bel 1, is now called Bel instead of Reeves. Satsuma prospect in Harris County, recently converted into an oil field by Amerada-Stanolind, is to be known as Fairbanks. The Amelia field in Jefferson County, which has been called West Beaumont field, has been officially called Amelia.

Stanolind Oil & Gas Company's completions were as follows:

First National Bank 3, Callahan & Vince Survey, northwest flank test, 69 barrels in 12 hours through a quarter-inch choke from 4833 feet with seven-inch casing set at 4783 feet; M. Butts 3, H. & T. B. Survey, No. 6, 481 barrels daily through quarter-inch choke at 4775 feet with a casing pressure of 700 pounds and a tubing pressure of 375 pounds, top oil sand 4744 feet, seven-inch casing set at 4666 feet; C. J. Wyenluth 1, H. & T. B. Survey, No. 6, 529 barrels daily through quarter-inch choke, tubing pressure 700 pounds, casing pressure 700 pounds, seven-inch casing cemented at 4595 feet; Drilling District 24, H. & T. B. Survey, No. 5, 288 barrels daily.

Smith & McDannald's Merideth 1, on the west and northwest side of the field was completed at 4775 feet flowing at the rate of 630 barrels daily through a quarter-inch choke. Oil sand was found at 4690 feet.

Sterling Oil & Refining Company made location for Houston Electric Company 1 last week in the H. & T. B. Survey, No. 7, South Houston field. It is 266 feet south of Barrett 1 or 197 feet northeast of Sterling's Dean 1 or 12 feet northeast of Sterling's Summers 1.

Stanolind Oil & Gas Company also had a big week in the Hastings field, Brazoria County, when it completed

TEXAS GULF COAST
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
AMELIA—		
Humble, Langham 2	624	6746
ANAHUAC—		
Humble, Broussard 8	626	7085
WHITE		
White 11	552	7082
CLAY CREEK—		
Sun, Carway 6	95	1225
CLEVELAND—		
Gulf, Kirby C-15	50	5903
DAMON MOUND—		
Sinclair-Prairie, Jackson 24	*	3450
DICKINSON—		
Humble, Maco Stewart A-8	720	8026
HASTINGS—		
Stanolind, Ford 3	537	6060
Law 1	598	6060
Turner 6	590	6069
Williams 5	456	6080
LIVINGSTON—		
Humble, Grandbury 27	336	4217
MANVEL—		
Texas Co., Belcher B-24	420	5150
Allison Richey 5	200	4048
ORCHARD—		
Gulf, Moore A-5	*	1810
PICKETT RIDGE—		
Texas Co., Pierce Estate A-22	432	4708
RACCOON BEND—		
Humble, Machemeh 13	336	4110
SOUTH HOUSTON—		
Smith & McDannald, Merideth 1	630	4775
Stanolind, Butz 1	481	4775
Drilling District 24	288	4800
First National Bank 1	138	4833
Wyenluth 1	529	4775
THOMPSON—		
Sterling, F. I. Booth 1	27	5409
TOMBALL—		
Humble, Milo 4	648	5561
BRAZORIA COUNTY—		
Deep South Oil Co., Demmics 1, H. & T. B. sur, sec 40	*	2002
Texas Gulf Producing Co., Sparks 1, Angleton prospect, Wm. Roberts sur	*	7525
WALKER COUNTY—		
Boone Brothers, Thompson Lbr. Co. 1, w of Trinity, J. Ortego sur	*	3006

*Failures; †Junked; ¶Million cu. ft. gas.

four producers, two of which extended the field.

Stanolind's Law 1 on the southwest flank of the field was finaled for 598 barrels of pipe line oil daily through a quarter-inch choke with a tubing and casing pressure of 900 pounds. The hole was drilled in the Marginulina-Frio sands to 6060 feet and seven-inch casing was cemented at 5865 feet. On the northeast flank of the field, Stanolind's Tuner 1 was completed for 590 barrels daily through a quarter-inch choke from 6069 feet after seven-inch casing had been set at 5997 feet. The same operator's Williams 5, 618 feet south of Williams 1, A. C. H. & B. Survey No. 1, made 188 barrels in 10 hours through a quarter-inch choke from 6080 feet. The last of the four producers was Ford 3 and it made 537 barrels daily from 6060 feet.

Near the old Jack Clark's Spear 1, which was abandoned some time ago and which created considerable excitement on the Gulf Coast, Deep South Oil Company quit Demmics 1 at 2002 feet.

Wildcat Shows Gas

In the Willis area of Montgomery County W. O. Belnoski's Wood 1, Wm. Weir Survey, was drilling plugs June 26 and was preparing to make a production test after making a drill stem test which showed gas and oil cut mud. On a drill stem test from 3709 to 3742 feet in the Cockfield formation Wood 1 showed a gas pressure of 180 pounds and 20 feet of gas cut mud. A core was taken down to 3757 feet which showed a faint odor of oil.

Sun Oil Company's Broussard 1, Labelle prospect, B. Blackmon Survey, Jefferson County, was reaming at the end of the week at 8752 feet. The well had a gas sand from 8737 to 8752 feet. While pulling the drill pipe to ream the hole heaved and started flowing. After bringing the well under control again the hole was reamed down to bottom where a test will probably be made.

In Orange County, Coker Oil Company's Mansfield 1, south of Vidor, J. W. Hill Survey, is reported to have cored an oil sand from 2481 to 2494 feet.

Humble Oil & Refining Company has made a location in the old Danbury field of Brazoria County. Moller 1 is 466 feet each way out of the northwest corner of a 58.48-acre tract in the S. A. Towsey Survey.

In Walker County, Boone Brothers abandoned Thompson Drilling Company 1, west of Trinity, J. Ortego Survey, at 3006 feet.

Anahuac Field Active

Humble Oil & Refining Company completed two wells in the Anahuac field, Chambers County, and was preparing to complete two additional tests at the end of the week. Humble Oil & Refining Company's White 11, J. McGahey Survey, on the north side of the field was finaled at 7082 feet in the Frio formation making 23 barrels per hour through a quarter-inch choke with a tubing pressure of 750 pounds. Oil sand was topped at 7007 feet and seven-inch casing was cemented at 7057 feet. The same owner's Broussard 8, H. & T. C. Survey, south flank of the field, was completed for 626 barrels daily through a quarter-inch choke with a tubing pressure of 650 pounds. The well was completed at 7085 feet after topping the oil sand at 7000 feet and setting seven-inch casing at 7055 feet.

Humble Oil & Refining Company's White B-1, J. McGehay Survey northwest flank test, was completed and then killed because of a high gas/oil ratio. The well came in making six barrels per hour through a quarter-inch choke with a tubing pressure of 2050 pounds and a casing pressure of 2525 pounds. The gas/oil ratio was 22,680 to 1. A sand was cored from 7090 to 7160 feet. The hole was first completed at 7096 feet in oil sand.

On the east flank of the field, Humble Oil & Refining Company's Lord 2 was sidetracking at 6759 feet after coring salt water sand at 7139 feet and drilling in the formation to 7164 feet. The hole will probably be completed in the Marginulina formation.

Humble Oil & Refining Company has made location for White B-3 on the northwest side of the field. It is 850 feet west of 1-B and 466 feet north of the south line of lease in the J. McGehay Survey.

Republic Production Company has made a third location on the Silsbee prospect in Hardin County. J. W. Brooks 1 is in the J. W. Brooks Survey and is 6000 feet east of Burrell 2, which was abandoned, and is 4350

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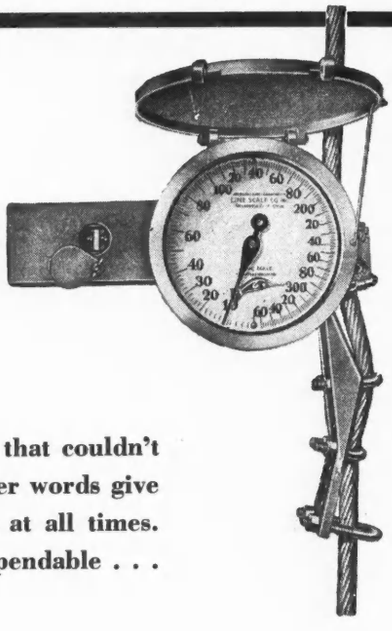

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feet from the west line and 1700 feet from the south line of survey.

Red Bank Oil Company has made location for a wildcat test in the Chriesman area of Burleson County. Neely Grann 1 is 330 feet south of the north line and 1500 feet west of the east line of Grann 221-acre tract, or 2875 feet north of the south line and 1500 feet west of the east line of Eliza Sante Survey. It is also 2500 feet northwest of the old Crain well which was drilled by Red Bank Oil Company.

Amelia Field Extended

The fifth commercial producer completed in the Amelia field, Jefferson County, extended the field approximately 1000 feet north. Humble Oil & Refining Company's Langham 2, C. Williams Survey, was completed for 27 barrels per hour through a quarter-inch choke with a tubing and casing pressure of 900 pounds. The hole was carried down to 6778 feet and oil sand was logged at 6764 feet and seven-inch casing was cemented at 6774 feet.

Humble Oil & Refining Company has made location for two new tests in the Amelia field. Pinchback 3 is 794 feet east of the west line and 460 feet northwest of the most easterly south line of a 107-acre tract in the C. Williams Survey. It is 933 feet south of Pinchback 1. Quinn 4 in 1112 feet south of the north line and 466 feet east of the west line of a 164-acre tract in Lot 5 of the Schaleur and McRey Subdivision of the C. Williams Survey.

The Texas Company has made location on the North Rosenberg prospect in Fort Bend County. Sugarland Industry 1 is 3038 feet north and 2019 feet east of the southwest corner of a 2813-acre tract in the J. Foster Survey, abstract 26. The wildcat is approximately three miles north of Rosenberg and is on a geophysical block of approximately 4500 acres. The prospect has been worked with both torsion balance and reflection seismograph by The Texas Company and it is in the area of the Harlem-Clodine prospect where Phillips Petroleum Company and Texas Gulf Producing Company drilled dry holes.

SOUTH LOUISIANA

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BLACK BAYOU—		
Shell, Watkins 32	*	4655
JEANERETTE—		
Herton Oil Co., Carter 1	768	7055
Banta 3	*	9005
Banta 4	775	6688
JENNINGS—		
Reed Oil Co., Heywood 10	100	1692
LEEVILLE—		
Texas Co., L. L. E. Leeville 49	445	3900
NEW IBERIA—		
Wm. Helis, Boliver 2	390	4009
PORT BARRE—		
Texas Co., Futral 1	*	5997
ROANOKE—		
Gulf, Anding 2-B	600	8730
SULPHUR—		
Union Sulphur, Fee 741 (wo)	576	3506
TEPETATE—		
Continental, Homeseekers 4-A	305	8320

*Failures; †Junked; ¶Million cu. ft. gas.

Disappointing Well

BIG LAKE OUTPOST TEST IS SWABBING SALT WATER

Lake Charles.—Magnolia Petroleum Company's Alvin Hebert 1, half mile east of the discovery gas well at Big Lake, Cameron Parish, proved disappointing June 26, when the operators swabbed salt water and a rainbow of oil and gas from 8603 feet. The well was watched closely as it was thought that it would open a new oil field for the Louisiana Gulf Coast.

After setting seven-inch casing at 8603 feet, plugs were drilled June 23, and two days later the well started flowing washwater with a trace of oil for 18 hours. The well was then swabbed for six hours and showed salt water with a trace of oil and gas. It is reported that the operators will probably recement the hole and reperforate again and make another production test. Sand showing oil was cored from 8606 to 8611 feet. At 8611 feet a clean sand was cored and after running an electrical logging device the well showed nine ohms of resistivity.

New Sand and Extension

A new producing sand was found 1250 feet east of production at Jeanerette last week when Herton Oil Company completed Carter 1, 1250 feet east of Roane 2, Section 38-13s-9e, St. Mary Parish, as a commercial producer from 7055 feet in Miocene formation.

Carter 1 was drilled to 9602 feet, plugged back, and completed at 7055 feet after casing had been perforated with 12 shots from 7015 to 7055 feet. The extension test came in flowing 32 barrels per hour through a quarter-inch choke with a tubing pressure of 1100 pounds. In completing this well at 7055 feet it opened the third producing horizon for Jeanerette.

Before this discovery the regular producing horizons were at 6658 and 7490 feet. But while drilling Carter 1 to 9602 feet a sand was found at 6741 feet and yielded oil and salt water on a production test. It is believed in the future this sand will be developed to make the fourth producing sand at Jeanerette.

Carter 1 is also credited with being the deepest test drilled in Herton Oil Company's field. After drilling to 9602 feet a combination string of five- and seven-inch casing was cemented at 8500 feet. Casing was perforated from 8423 to 8450 feet with 12 shots and on a production test salt water was shown.

The second producer completed by Gulf Oil Corporation at Roanoke was Anding 2-B, which is credited with extending the prolific field over 750 feet in the northwesterly direction. Anding 2-B, Section 2-9s-4w, was completed at 8730 feet flowing 25 barrels of pipe line oil per hour through a quarter-inch choke. The previous week the well showed 1000 feet of oil on a drill stem test from 8692 to 8724 feet.

Sixth 10,000-Foot Test

The sixth well to pass the 10,000-foot mark in the Louisiana Gulf Coast is Continental Oil Company's Alvin Hebert 1 at Abbeville in Vermilion Parish. At the end of the week the operators were drilling sand and shale at 10,005 feet.

The Abbeville prospect, centering around Section 20-12s-3e, is a likely geophysical prospect around which Continental Oil Company has 8000 acres.

Hebert 1 was spudded in April 15, 1936, and encountered a sand with a slight show of oil with salt water from 7338 to 7350 feet. On an electrical logging device from 7884 to 8000 feet, the top 10 feet of sand showed 17 ohms and the rest salt water. From 7668 to 7682 feet the device showed 25 ohms resistivity and 95 millivolts porosity. Sand showing oil was cored from 8877 to 8881 feet. In the last 1000 feet the operators have cored sand and sandy shale with no more shows reported. It is probable that the crew will drill Hebert 1 to a record depth and then set casing and perforate the sands having the best possibilities.

The record drilling depth for the Louisiana Gulf Coast is held by Shell Petroleum Corporation, which drilled Jarnigan 1, Roanoke field, Jefferson Davis Parish, to 10,750 feet before abandoning it. Also in Roanoke field, Humble Oil & Refining Company drilled Thomas 1 to 10,558 feet before quitting in heaving shale. Both of the Roanoke 10,000-foot tests encountered considerable trouble with gas below 10,000 feet. Third in line of deep drilling honors is Superior Oil Producing Company's Community 1, which was drilled on the University Block prospect in East Baton Rouge Parish and showed oil below 10,000 feet. It was marked up as a failure at 10,360 feet. Shell Petroleum Corporation's Realty 1, Houma townsite prospect, Terrebonne Parish, went to 10,157 feet and was found to be dry. Superior Oil Producing Company's A. Martinez, east flank of Bosco field, Acadia Parish, which was the first 10,000-foot test drilled in the Louisiana Gulf Coast, cored salt water below 10,000 feet and was completed at 10,002 feet. The latest test to pass 10,000 feet is Continental Oil Company's Hebert 1, which was drilling below 10,005 at the end of the week.

St. Martinville field, St. Martin Parish, was extended 1980 feet north June 26 when Fee 1, Section 18-11s-6e, came in flowing 20 barrels per hour, 50 percent washwater, through a ¼-inch choke from 7353 feet, to open a new producing horizon for the field. The well had not fully cleaned itself at the end of the week.

On the north and west flank of New Iberia field, Iberia Parish, Wm. Helis

cored over 140 feet of sand in Boliver 2, Section 56-12s-7e, and completed the test at 4009 feet after stopping in oil sand. Boliver 2 came in making 395 barrels daily through a quarter-inch choke. Later it started making 1070 barrels daily through a quarter-inch choke with a tubing pressure of 500 pounds and a casing pressure of 250 pounds.

L. & T. Oil Company's Buhler 1, north of Fohs Oil Company's Frost 1, Gillis field, Section 11-9s-8w, Calcasieu Parish, was completed June 24, being the best well completed in the graben between the Gillis and English Bayou fields. Buhler 1 came in flowing at the rate of 350 barrels of pipe line oil daily through a quarter-inch choke, with a tubing pressure of 425 pounds and a casing pressure of 900 pounds. The gas/oil ratio is 500 to 1. Buhler 1 is the first well completed on the company's four-acre Buhler tract as an oil producer. Union Sulphur Company abandoned Buhler 1 at 7888 feet in salt water sand and passed up the 5200-foot sand which was found in L. & T. Oil Company's Buhler 1. After Union Sulphur Company abandoned Buhler 1 the operators surrendered the acreage and the independent operators immediately leased the four acres with a drilling contract. L. & T. Oil Company drilled Buhler 1 to 5264 feet after topping the gas sand at 5236 feet and the oil sand at 5257 feet. In the 18 feet of sand the operators made a perfect setting, taking in enough gas and oil sand to make a well.

Lake Charles.—There were 11 completions reported in Louisiana Gulf Coast last week, of which eight resulted in oil producers with an aggregate initial production of 3959 barrels daily. The remaining three completions were failures.

30 Salt Water

CONTENT RANGING UP TO 55 PERCENT IN RODESSA WELLS

NORTH LOUISIANA

WEEKLY STAFF REPORT

Shreveport.—Thirty wells at Rodessa are showing various amounts of salt water from a fraction of one percent up to 55 percent in one well, the latter being Vaughn Production Company's Hunter and Derryberry 1, Section 14-23n-16w, a Dees sand oil well. Fourteen wells owned by Standard Oil Company of Louisiana are showing water and eight owned by United Gas Public Service Company are showing water. R. W. Norton has two showing water. All of these are on the Louisiana side of the field.

United Gas Public Service Company has applied for a federal tender to transport oil through its recently acquired pipe line from Rodessa to Longview. Twenty-three wells were tendered to East Texas Oil Refining Company at Longview, it being explained the company is under contract to deliver this company 5,000 barrels daily.

Rodessa had another slow week during the seven-day period ending Thursday, June 25, adding only three new wells to bring the total of new producers in that field to 217. Nine new locations were announced.

56 Rigs Running

On Thursday there were 56 tests drilling in the field, five rigging up, and 10 active locations. The wells drilling included 44 on the Louisiana side of the field and 12 in Texas.

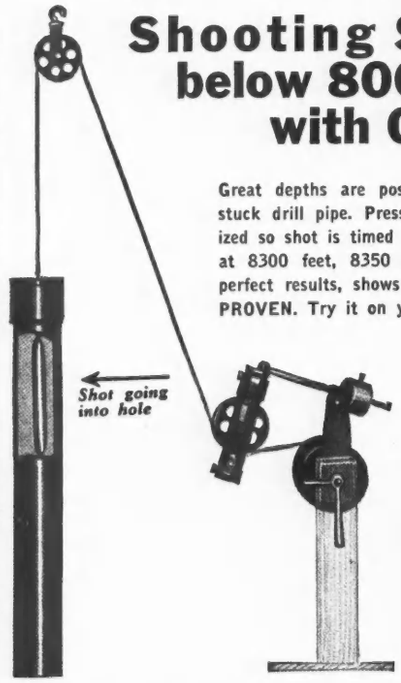
Louisiana drilling operations in Rodessa are divided among the following companies: Arkansas-Louisiana, six; R. W. Norton (Magnolia Petroleum Company), six; Standard Oil Company of Louisiana, four and one rigging up; Phillips Petroleum Company, five; United Gas Public Service Company, 12, and two rigging up; miscellaneous, 11 drilling and one rigging up.

Those on the Cass County, Texas, side of the field are divided as follows: R. W. Norton, three drilling; United Production Corporation, five drilling; and miscellaneous, four drilling.

Of the nine new locations announced, one in Cass County, two miles southwest of production; was the most important, this being American Liberty Oil Company's G. Stephens and associates 1, on a 114-acre tract in the Jacob Carstner Survey. The others, all in Louisiana, included four in Rodessa townsite in Section 23-23n-16w, as follows: W. D. Ambrose's Johnson Heirs 1, and Mathis and Adams 1; H. W. Snowden's J. Johnson 1, and H. Meyer's Phillips 1. Three were made by R. W. Norton as follows: Foscue 6, Section 20-23n-16w; J. F. Slattery 2, Section 28-23n-16w, and Levee Board A-7, NE NE 28-23n-16w. Standard Oil Company of Louisiana made location for Caldwell 5, Section 12-23n-16w.

The three new wells are: Arkansas-Louisiana Gas Company's Rodessa 17, Section 23-23n-16w, completed at 5990 feet flowing 32 barrels of oil per hour through half-inch tubing choke with 1,500,000 cubic feet of gas daily; R. W. Norton's Tyson 4, Section 13-23n-16w, completed after use of 3000 gallons of acid, at 6059 feet flowing 30 barrels per hour through tubing choke; and United Gas Public Service Company's Rodessa 22, NW NW 15-23n-16w, a south offset to Standard Oil Company's S. G. Zylks 1, SW SW 10-23n-16w, flowing 12 barrels of oil per hour through half-inch tubing choke at 5987 feet, with casing pressure 850 pounds and tubing pressure 50 pounds; elevation is 206 feet.

Standard last week recompleted S. G. Zylks 1 which had shown some salt water at 5987 feet and it flowed 210



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barrels in 24 hours through 19/64-inch tubing choke.

Use of acid in an attempt to better the output of wells previously completed with small initial production, as well as in completing wells, is becoming more of a practice at Rodessa. Last week United Gas Public Service Company recompleted two wells after using acid. They are: Pitts 5, Section 13-23n-16w, recompleted after using 1500 gallons of acid, flowing 16 barrels per hour through quarter-inch tubing choke with a casing pressure of 300 pounds and a tubing pressure of 500 pounds, and Pitts 7, SW SW 13-23n-16w, recompleted at 6095 feet after a similar amount of acid was used, flowing 11 barrels per hour through quarter-inch tubing choke. American-Liberty Oil Company's Rambo 1, J. H. Rives Survey, recently completed four mile southwest extension well, was also treated with acid and recompleted making 10 million cubic feet of gas daily through quarter-inch tubing choke.

Standard Oil Company of Louisiana last week acquired the northwest quarter of Section 10-23n-16w, northwest of production, from King Oil Corporation of Texarkana. Blackwell Oil and Gas Company also acquired a 32-acre lease in Section 8-23n-15w, from O. G. Collins and associates.

Ohio Oil Company is moving in 7-inch flush joint casing to set in R. L. Holloway 6, NE SW 23-21n-10w, Cotton Valley, Webster Parish, which recently cored 25 feet of oil sand in the Travis Peak and blew out oil before being brought under control. Depth is 8374 feet; elevation is 210 feet. The sand in which the oil appeared has definitely been identified as above the Permian.

With three tests drilling for possible oil production in township 17 north, range 12 west, on the southwest flank of the Sligo gas field in Bossier Parish, this parish is seeing a revival of interest both in leasing and geophysical activity. United Gas Company, which is drilling one of the tests on the southwest flank of the structure for oil, has sent a geophysical party back into this area, and has a unit working around the old Elm Grove gas field in township 16, range 11.

In the same parish, in township 23 north, range 13 west, Magnolia Petroleum Company has a geophysical party at work and in the same general area, Stanolind Oil & Gas Company has a seismograph unit. In township 15 north, range 11 west the Texas Company is doing some leasing.

Two additional wildcat tests for Bienville Parish, in the North Louisiana Basin, are expected to materialize soon. Floyd G. Miller is obligated to spud by August 25 on a 4500-acre block centering in Section 3-15n-9w, which was shot by Texas-Louisiana Exploration Company. Burke White will drill an early 6,000-foot test on a 3000-acre block centering in Section 5-17n-7w. A Standard Oil Company shooting unit worked this area recently.

A block for a 6000-foot test centering in Section 10-17n-14w, just outside of Shreveport, has been completed and this test, heretofore reported, will spud by August.

In DeSoto Parish, Donald Dickson of Sherevport has assembled a 6000-acre block centering in Section 22-114m-13w, for a proposed 6000-foot test to spud within 90 days.

In Claiborne Parish, Ryan Petroleum Corporation may drill another test on its block centering in Section 29-20n-7w, it having drilled a 5500-foot test on this block several months ago. Phillips Petroleum Company has a seismograph unit working on the south and west flanks of the old shallow Haynesville field.

In Panola County, East Texas, around the John H. Gibson Survey, A. C. Glassell of Shreveport has a 6200-acre block on which he plans to start a Glen Rose test by September 15. Danciger Oil and Refining Company has a large block around the W. G. Booker Survey and another major company has one around the John Daugherty Survey, both in Panola County.

Shreveport.—Leasing and geophysical activity continue along the southwest trend of the Rodessa Fault in the counties of Cass and Marion.

It is reported that Sinclair Prairie Oil Company which recently checked the several thousand acres of leases held by Arkansas-Louisiana Gas Company has until October 1 to exercise an option to acquire this acreage. In Marion County, Flesh & Hootkins recently secured a 35-acre tract in the Lizzie Henderson lease, R. Bennington Survey, for a proposed oolitic lime test. In the southeast corner of the

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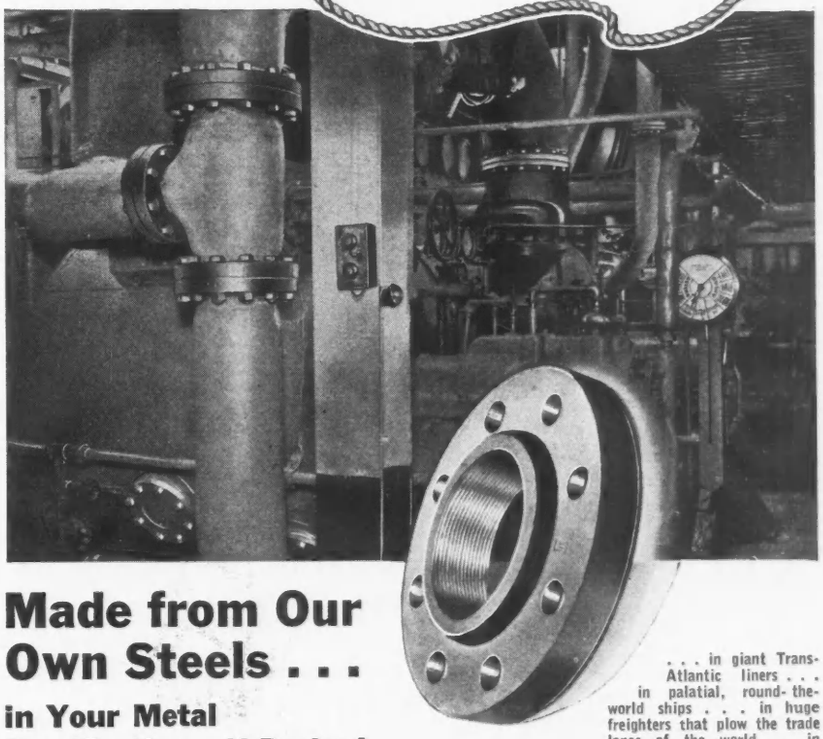

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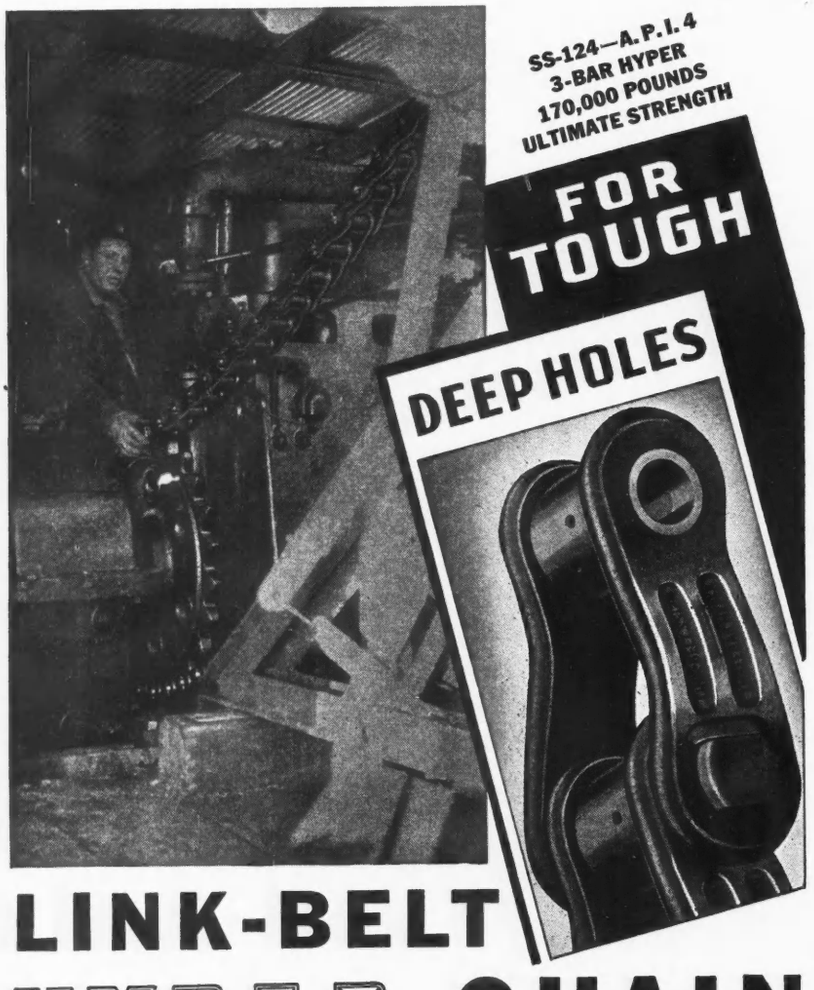
HARRISBURG • PENNSYLVANIA

A. Douthit Survey, Tide Water Oil Company recently bought an 80-acre lease on the W. A. Jones tract from W. C. Woolf of Shreveport.

Southwest of Jefferson, Marion County, Atlantic Oil Producing Company is reported to have taken approximately 7500 acres of scattered leases, centering approximately around the Thomas English Survey and extending into north Harrison County. The company's torsion balance unit is working around the B. Stinson and adjacent surveys. Pure Oil Company has a seismograph unit in southwestern Harrison County. In the latter county, Shell Petroleum Corporation has a unit shooting between Waskom and Marshall and Sinclair Prairie Oil Company's shooting unit is working near Woodlawn.

In Cass County, Amerada Petroleum Corporation has a geophysical party working in the J. C. Crain and adjacent surveys and three miles west of Jefferson the same company has a seismograph unit at work.

Lide & Greer's Simmie Gardner 1, Section 10-17n-4w, Lincoln Parish, was coring ahead last week below 6550 feet after testing an estimated 10 million cubic feet of wet gas in a drill-stem test at 6483 to 6498 feet in Travis Peak sand. The test was made after an electrical tester run to 6498 feet showed 25 ohms of resistivity and 85 milivolts of porosity. The sand formation showing gas and distillate continued for the next sixty feet.



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PERMIAN WILDCAT

Second Snow Hill test produces 85 barrels

El Dorado.—The second gas-distillate well for Snow Hill area of Ouachita County, Arkansas, was completed in top of the Permian lime last week in Standard Oil Company of Louisiana's Reynolds B-3, SE NE 27-15-15, which flowed 85 barrels of 57 gravity oil and made six million cubic feet of gas in a 24-hour test flowing through cracked valve with no choke.

This test in a core from 4871 to 4891 feet recovered sixteen feet of which four feet was oolitic black asphaltic lime, the next six feet being slightly porous oolitic lime of buff color with a trace of oil at the bottom. The next 3.5 feet was dense gray lime with shale streaks, and the next 2½ feet was porous oolitic lime with streaks of Coquina, well-saturated with light oil. The next 20 feet showed a well-saturated porous oolitic lime streaked with Coquina and a porosity of 26 to 39 percent.

Taxes on gasoline have cost the motoring public more than $5,300,000,000 in the last 16 years, enough to build 10 Panama Canals and several Boulder Dams.

NORTH LOUISIANA
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CADDO PARISH (Rodessa)—		
Ark. La. Gas Co., Rodessa 17, 23-23n-16w	1500	5990
R. W. Norton (Magnolia), Tyson 4, 13-23n-16w	1500	6059
United Gas Pub. Serv. Co., Rodessa 22, 15-23n-16w	1200	5987
BOSSIER PARISH—		
Humphreys et al, Bulkley 1, 36-21n-13w	*	2306
CADDO PARISH (Pine Island)—		
Morris & McCain, Hughes 1, 15-20n-15w	sw	2257
Simplex Oil Co., Glassell 10, 10-20n-15w	50	2200
GRANT PARISH (Urania)—		
T. A. W. Oil Corp., Bradford 2, 16-9n-1e	*	1558
LA SALLE PARISH (Urania)—		
Fred W. Hensley, Urania Lbr. Co. 2, 7-10n-2e	10	1519
MOREHOUSE PARISH (Monroe)—		
United Gas Pub. Serv. Co., Tensas Delta 23, 20-22n-4e	¶4	2187
Tensas Delta 24, 3-21n-4e	¶5½	2192
Tensas Delta 26, 4-21n-4e	¶5	2171
RAPIDES PARISH—		
Texas Co., Weil 1, 53-1s-2e	312	5677

*Failures; †Junked; ¶Million cu. ft. gas.

ARKANSAS
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
UNION COUNTY (Rainbow City)—		
J. E. Crosbie, Inc., G. Morris 1, 7-17-13	*	3340

*Failures; †Junked; ¶Million cu. ft. gas.

Yields Salt Water

PERMIAN LIME NOT PROVEN AS SOURCE OF TROUBLE

WEEKLY STAFF REPORT

El Dorado.—Salt water appeared last week during a 24-hour test of Phillips Petroleum Company's J. D. Reynolds 1, SE NW 27-15-15, Ouachita County, the Permian lime discovery well in the Snow Hill area, one mile northeast of the shallow Smackover field, completed as a gas-distillate well several weeks ago at 4926 feet.

The well flowed 419 barrels of fluid in 24 hours through open tubing, making 13 million cubic feet of gas. Thirteen percent of the fluid was salt water and 22 percent basic sediment. The gravity of the oil was 47.2 degrees. Whether the water is coming from the Permian lime is not known.

Ohio Oil Company is plugging back and arranging to perforate casing in Bodcaw Lumber Company 3, NW NW 20-16-23, LaFayette County, at 3542 feet, where the test had a show of oil. Week before last this well tested a show of gas and 2200 feet of salt water in 12 minutes in a drill stem test at 7698 feet in porous oolitic lime at the top of the Permian; total depth is 7707 feet.

May and Easton's Conway 1, NE SW 20-12s-27w, which cored sand showing oil in the Trinity at 2612 to 2623 feet, corresponding to the Gloyd at Rodessa, tested a showing of dead oil and brackish water when a formation tester was run. It is coring ahead.

Shooting Continues

Geophysical activity in southern Arkansas and northeast Louisiana as a result of Permian lime gas-distillate production continued apace again lst week.

In Ashley County, Murphy and associates took a shooting option on 10,000 acres in Township 19, Ranges 8 and 9 and are reported seeking another block in Township 19, Range 7.

In Columbia County, west of Magnolia, the county seat, Root Petroleum Company has a seismograph unit at work, while in the same county near Emerson, south of Magnolia, Tide Water Oil Company has a shooting crew at work.

George E. Failing still has a seismograph unit in LaFayette County.

In Miller County, Sinclair Prairie Oil Company is detailing a block near Fouke owned by J. K. Wadley of Texarkana, while Standard Oil Company of Louisiana continues to retain a seismograph unit near Fouke.

Benedum and Trees Oil Company has a shooting unit working in Township 14, Ranges 19 and 20, Nevada County, and in the same county Tide Water Oil Company has one unit shooting south of the old Stephens shallow field and another in Township 15, Ranges 19 and 20, west of Stephens.

In Ouachita County, Phillips Petroleum Company has a seismograph unit in Township 15, Range 18, and Shell Petroleum Corporation is moving a seismograph unit into Township 15, Range 15.

Northeast Louisiana counties bordering the Arkansas line are getting their full share of attention. In Caldwell Parish, James Patton of Dallas, Texas, has assigned a block centering in Section 31-15n-3e to Seaboard Oil Corporation. This block has a drilling obligation to start by July 1. Morehouse Parish has gotten most of the play from the Permian gas discovery in Ouachita County, Arkansas. Superior Oil Company within the last two months has taken over 18,000 acres in this parish. Others who have leased in this play are Magnolia Petroleum Company, The Texas Company, Arkansas-Louisiana Gas Company, H. L. Hunt, George Greer, and H. M. Jones. Magnolia recently has taken leases in Township 22 north, 7 east, and Hunt in Township 20 north, 6 east. A major company geophysical party is in 20 north, 6 east.

In Richland Parish, Phillips Petroleum Company is reported to have taken geophysical options on 35,000 acres of land in Townships 17, 18 and 19 north, Range 8 east, owned by the Chess-Wymond Lumber Company.

In Union Parish, Tide Water Oil Company recently leased 1500 acres in Townships 21 and 22 north, Ranges 1 and 2 east. F. A. Fuller recently assigned a block in Township 22 north, Range 2 west, to the Hunter Company and also has a checker-boarded block in Township 21 north, Range 1 west. In the same parish, Standard Oil Company of Louisiana has a seismograph unit working near the hamlet of Lillie.

SOUTHEASTERN STATES
Completions
MISSISSIPPI

Company, Well and Location	Init. Prod. Bbls.	Depth
RANKIN COUNTY (Jackson)—		
Wilmut O&G Co., Sloan 1, nw sw 8-5n-2e	*	2520
WARREN COUNTY—		
Harry W. Elliott et al, R. L. Parker 3, 14-14n-1e	*	3140

*Failures; †Junked; ¶Million cu. ft. gas.

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Rodessa—Monroe—Kilgore
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Strike Helps

RIG BUILDERS HALT HECTIC OFFSET DRILLING RACE

WEEKLY STAFF REPORT

Hobbs, N. M.—Drilling activity in Lea County areas is declining sharply as result of rig builders having launched a strike June 10 for higher wages. Operators continue to announce the staking of a normal volume of location to be drilled, but are not attempting to proceed with the erection of steel derricks. This labor difficulty is giving many of the operating units a welcomed breathing spell in keeping abreast of offset drilling, thus accounting for the fact that no special effort has been made to effect a compromise with the strike leaders. Completion of 11 producers in Lea County the past week was followed by the stacking of an equal number of rigs, although locations were made for 13 new well projects during the same period.

Monument field contributed 7 of the new producers and shared equal honors with the Eunice field in recording 5 locations to be drilled when the labor dispute is settled. Late completions included Ohio Oil Company's State-Elliott 3, SW SW SE 30-19s-37e, with a natural flow of 90 barrels hourly through 1-inch choke on tubing from lime at 3935 feet. The gas volume was rated at 2,000,000 cubic feet daily. Continental Oil Company and The California Company's H. M. Britt 2-A-6, C NW SW 6-20s-37e, gauged 47 barrels hourly through ¾-inch choke on tubing with packer set at 3845 feet. It is producing from saturated lime at 3880-3895 feet, with an elevation of 3573 feet. Gas flow rated at 36,000,000 cubic feet daily appeared when the hole was tested at 3850 feet, with 5½-inch pipe cemented at 3775 feet. The tubing packer reduced the gas volume to 1,370,000 cubic feet daily on the potential gauge.

Shell Petroleum Corporation announced 2 locations for the Monument area, including State 3-B, C NE NW 36-19s-36e. This concern's State 1-G, SW SW SW 16-20s-37e, is a north offset to the important southeast extension producer completed recently by Repollo Oil Company. Skelly Oil Company's State 1-F, SE SE SE 17-20s-37e, is a northwest diagonal offset. Ohio Oil Company's Oscar Barber 1, C SW SW 32-19s-37e, is also among the new group of locations.

C. & G. Oil Company and The Texas Company's Ellen Weir 1, C NE NE 14-20s-37e, 3 miles east of the Monument lime area, tested 4,500,000 feet of gas and a spray of oil when deepened to 3955 feet, or 391 feet subsea, and treated the sandy-lime formation with 3000 gallons of acid. E. B. Germany, head of the C. & G. Oil Company, has announced that the gas will be lubricated off and the hole deepened with a machine. This wildcat previously tested 1,250,000 feet of gas with 5 barrels of oil using 2500 gallons of acid at 3893 feet. No water has been encountered.

Eunice Extension

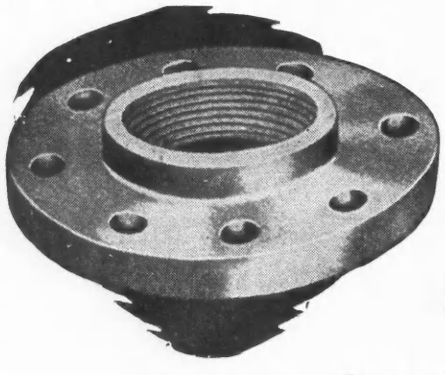
The Texas Company's E. L. Alexander 1, C NW SW 7-21s-37e, situated 1½ miles northeast of nearest production in the original Eunice field, is producing about 20 barrels of oil and 10 barrels bs&w after using acid twice in sandy-lime formation at 3740-3835 feet. Repollo Oil Company has made location for J. M. Brownlee 1, NE NE SW 25-21s-36e, nearly 3 miles east of nearest production in the Eunice field, and about ½-mile south by west of Gulf Oil Corporation's Mattern 1, which was completed as a gasser in 1929 after plugging back from sulphur water at 3934-4150 feet to 3850 feet. Spray of oil passed up at 3785-3791 feet correlates favorably with the sandy-lime oil belt now yielding oil to the north and south of the town of Eunice.

Majority of the new locations assigned the Eunice field were for the east portion of the structure. Continental Oil Company made location for State 2-D-15, C NW NE 15-21s-36e. Landreth Production Corporation's State 1-D, C NW NW 22-21s-36e, and Gulf Oil Corporation's State-Arnott-Ramsey 9-C, C NE NE 21-21s-36e, are offsets. The latter also made location for State-Orcutt 5, C Lot 12, 5-21s-36e. Shell Petroleum Corporation's State 2-E, C Lot 10, 6-21s-36e, affords a northwest outpost for the field.

The rig builders strike can be sidestepped by operators in the eastern Lea County sandy-lime belt, as machines are generally used in drilling in this area, except when short-term lease contracts require rapid progress. Most operators have preferred to use rotary to top of salt, then finish up with machine, unless in areas that yield excessive gas flow in the brown lime horizon. Humble Oil & Refining Company has moved in materials to drill B. E. Boyd 1, C NW SE 35-22s-37e, 2 miles from nearest production in the South Eunice area.

In the East Jal sandy-lime area, Gulf Oil Corporation's L. M. Buffington 1, C NW SW 13-25s-37e, 1½ miles southeast of production, is showing for a big gasser at 3065 feet, with an elevation of 3091 feet. This outpost occupies a high structural position, but missed the shallow gas found in wells to the west. Argo Royalty Company is the latest entrant in the East Jal field, having made location for B. T. Lanehart 1, SW SE NE 21-25s-37e.

Allowable production for the state was retained at 73,000 barrels daily during the last proration period in June by the New Mexico Oil Conservation Commission, but the average yield for Lea County wells was cut from 100 barrels to 97 barrels daily effective June 16 to compensate for new completions.



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Extension Likely

LANCE CREEK OUTPOST TEST HAS 8484-BARREL INITIAL

ROCKY MOUNTAIN FIELDS

WEEKLY STAFF REPORT

Casper, Wyo.—Extension of the Lance Creek field to the southwest appears more favorable as Continental Oil Company's Joss 4, 90 feet west of the CSW NE 6-36n-65w, made the largest Sundance completion on record in the Niobrara County field this week. The well gauged 312 barrels per hour after it had cleaned itself, or at the daily rate of 8484 barrels. A 9,000,00-cubic foot flow of gas accompanies the oil. The well had the top of basal Sundance at 3651 feet and went into red beds at 3887 feet, total depth. It encountered basal Sundance only 76 feet lower than Continental's Schuricht 2, 40-acre location to the east. According to present mapping based on logs of old Dakota wells it was expected that the well would reach the basal Sundance from 150 to 175 feet lower than Schuricht 2, and indications now point to a larger Sundance pool embracing former doubtful acreage to the southwest.

Continental Oil Company's Apex 3-Account 2, CSE NW 34-36n-65w, an extension test one mile east of the nearest Sundance producer at Lance Creek, is at critical depth, coring ahead for the basal Sundance at 3900 feet. The company this week started a new well in the field, Schuricht 1-A-3, CSW NW 5-36n-65w, southwest of its large completion. Schuricht 1-B, CNW SE 6-36n-65w, is drilling at 3421 feet, after topping the Muddy at 3047 feet.

Ohio Oil Company has a near completion in Lamb 8-Account 2, CSW NE 6-36n-65w. which is coring in the basal Sundance at 3951 feet. Well had the top of the Sundance at 3951 feet and cores show a good sand condition and excellent saturation. In the center of the 40-acre tract to the southwest, the Argo Oil Company's Elliott 7, CNE SW 5-36n-65w, had a hard tight lime cemented sand at 3941-97 feet. The well pumped at the rate of 240 barrels daily, and the company is planning to place a light shot of nitroglycerine, and then acidize for production boost.

Ohio Oil Company's Carrie Putnam 5, CNW SW 33-36n-65w, has rig up. The J. M. Huber Corporation and MacKinnie Oil & Drilling Company are drilling at 1850 feet in Mary Thompson 1, NE SW NE 7-35n-65w, an outside location to the south of Sundance production.

Oil At Dewey Dome

Conway Oil Corporation's Government 1, SE SE NE 7-41n-60w, wildcat test on the Dewey Dome structure, Weston County, eastern Wyoming, has oil standing to the top of the 3½ I. D. special mill job casing set on bottom at 2304 feet. Operators are preparing to swab the well. The producing sand is a fine white sand which compares with the sand in which the Argo Oil Company developed its deep production in East Mule Creek field, 17 miles to the south. The well encountered the same sulphur gas just above the sand that the Argo had in its deep well. Gravity of the crude is reported at 38 degrees. The well had water in the Dakota and Lakota sands encountered at nominal depths. The Minnelusa (Tensleep), logged at 1720 feet was unproductive.

Laramie Basin Fields

One well started and two wells are at interesting depths in fields in the Laramie Basin area of south central Wyoming. The California Company is rigging up for Wilson 2, CSW SW SW 18-17n-76w, in Quealy Dome light oil field, Albany County. This is a test headed for the Sundance. Two previous tests have started for the Sundance at Quealy, but were backed up when wells went into steep dips.

Sidney H. Keoughan of Casper and the Union Oil Company of California are coring in the Lakota topped at 4952 feet in Union Pacific 20-X, 1800 feet from the east and 1320 feet from the north lines of 1-18n-78w, Carbon County. The well had the Muddy sand at 4788-4828 feet and cores showed good oil saturation. It topped the Dakota at 4908 feet and found the sand dry. Test is checking 76 feet higher than the highest well drilled at Dutton. Sundance is expected in the next few hundred feet of hole.

In the Big Medicine Bow field, Carbon County, the Ohio Oil Co. and the California Co.'s Union Pacific 2, CNE NE 32-21n-79w, is drilling in Morrison formation at 5299 feet, just a few feet above the Sundance series where prolific production is developed at Big Medicine. These companies' Union Pacific 3, CNE SE 23-21n-79w, is drilling at 4803 feet.

Sinclair-Wyoming Oil Company's Muskrat 3-C, NE SW SW 1-35n-92w, deep test to unexplored sands below the Frontier series on Muskrat Dome, Fremont County, where one large commercial gas well is producing, is drilling at 3970 feet and feeling ahead for Wall Creek sands. Sinclair's deep well to untested lower sands underly-

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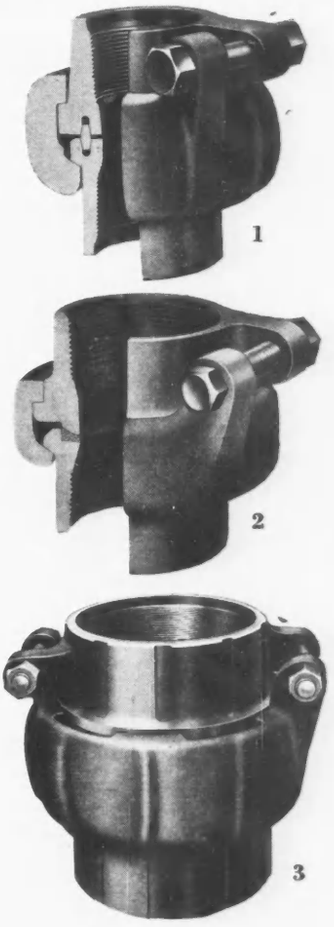


THORNHILL-CRAVER CO.
HOUSTON, TEXAS

ing the Wertz Dome gas field, Carbon County, Wertz 10-A SW NW 7-26n-89w, is rigging up with heavy duty rotary equipment.

One Completes At Byron

Ohio Oil Company's Byron-Union 4, CSW NE 25-56n-97w, an outpost well in the Byorn field, Big Horn County, northern Wyoming, completed this week for a small pumper. On an eight hour test the well pumped 96 barrels, or at the rate of 288 barrels daily. The well was acidized with 2000 gallons in the Embar lime at 5587-5700 feet. It drilled out of the Embar at 5710 feet and went to 5735 feet, but plugged back.

Ohio Oil Co.'s Robert Till 1, CSE SW 24-56n-97w, Byron, is drilling at 4956 feet, and Orson Vail 1, CNW NE 23-56n-97w, is drilling at 2627 feet. State Land 1, northeast corner Lot 33, 36-56n-97w, has rig up.

Sidney H. Keoughan and Taylor Oil Company are rigging up rotary for Robinson 1, SW SW NW 24-56n-97w.

Grass Creek Producer

Stanolind Oil & Gas Company completed Ridgely 20, SE NE 10-46n-98w, Grass Creek field, Hot Springs County, for 583 barrels daily on the pump. Well was tested through an 80 hour period. Embar was topped at 3908 feet, and saturation logged from 3962 feet to bottom of hole at 3990 feet in the lime formation. Ohio Oil Company's Mill Iron Cattle Co. 73, NE SW 19-46n-97w, is drilling at 3581 feet.

Stock Oil Company is cementing old shallow Frontier holes in the immediate vicinity of its Allen 1, SE NW SE 35-56n-97w, Garland Anticline, Big Horn County. Efforts to pump through from side wells and bridge hole to kill gas from Allen 1 were being dissipated as circulation was returning through the abandoned Frontier wells. Las week operators at Garland snuffed out the fire in Allen 1 through introducing torpedoes to the well mouth through water cooled barrel rigged up from junk six-inch casing. Gas from the well is drawn off through 300 feet of 10-inch casing to two 20-foot standpipes, where it is burning. The well has a 60,000,000-cubic foot flow of gas daily from the Embar-Tensleep at 3815 feet.

The Stock Company's Allen 1-X, 420 feet due east of Allen 1, is drilling at 2090 feet and will be carried to 2600 feet to the Dakota series where it will stop and be used as a side well to pump water through the Dakota to bridge the hole of Allen 1. When gas is killed in Allen 1, the Allen 1-X, originally started as a directional hole, will be drilled down to the Madison for oil production at around 4400 feet.

Stock Oil Company's Yates 1, CSL SW NE 33-56n-97w, a quarter of a mile north of the gasser, is drilling at 3000 feet in the red beds, and is headed for the Madison.

Tri-State Gas Area

Mountain Fuel Supply Company has a test in a corner of each state of the tri-state gas area embracing northeastern Utah, southwestern Wyoming, and northwestern Colorado. The company this week moved in material for State Land 1, NW SE SW 16-3n-24e, Clay Basin gas structure, Daggett County, Utah. In the South Baxter Basin field of Sweetwater County, Wyoming, the company's W. T. Nightengale 1, SW NE 32-16n-104w, is drilling at 1272 feet. This is a 40-acre location southwest of the nearest gas production at South Baxter. Mountain Fuel Supply's Georgie Kuykendall 1, northeast corner SE NE 22-12n-100w, Hiawatha field, Moffat County, northwestern Colorado, is drilling at 2416 feet. This well is a deepening job.

Protest Cut

CUT BANK AND KEVIN OPERATORS APPEAL TO I. C. C.

Great Falls, Mont.—A storm of protests from producers in Kevin-Sunburst and Cut Bank fields of Montana came as the result of the recent slash of crude oil in these fields last week. Several protest meetings were held here. When Toronto Pipe Line Company cut the posted price of Cut Bank crude from $1.50 to $1.35 per barrel it was immediately followed by a 10-cent reduction in Kevin-Sunburst field by International Pipe Line Company and Ohio Oil Company.

In an effort to stop the proposed reduction of 7½ cents per barrel in charges for piping oil from Cut Bank to the Canadian border a petition is being circulated in Kevin-Sunburst field calling upon the Interstate Commerce Commission to block this move. The proposed reduction will be put in effect on July 2 unless blocked by the commission. Operators in Kevin-Sunburst field believe these reduced rates would again reduce the price of their crude.

At the time the recent reduction in crude oil was put in effect a movement to stabilize market conditions for Cut Bank field was underway with The Texas Company taking the lead. The Texas Company is the only major oil company operating extensively in the field. Through company officials buying lease extensions the number of wells this company will drill in the field this year was reduced from 50 to 25. In comparison with the 90 wells drilled in the field in 1935, 145 wells must be drilled in 1936 to meet lease requirements. This comes as the result of the great number of leases on Indian tracts in the southern part of the field with a minimum requirement of two wells to the tract drilled each year. A reduced drilling program may bring about a better price for crude in order to meet consumption demands.

Cut Bank Field

Although the Cobb and Pardee's Stufft 1, SE NW 25-36n-6w, proved a disappointment as an oil producer the well completed as a large gasser flowing 13,000,000 cubic feet, in the Cut Bank field, Glacier County, northern Montana. Two other wells finished as average producers and three new wells were spotted.

Stufft 1 was drilled to 3050 feet with only a show of oil. Operators are plugging back to 2925 feet in the Moulton sand to save the flow of gas.

Montana Power Gas Company's Seeba 4, SW SW NW 2-34n-6w, swabbed 51 barrels in 23 hours. The Cut Bank formation was found at 2890-2923 feet. Well was shot four times with 20 quart shots of nitro glycerin.

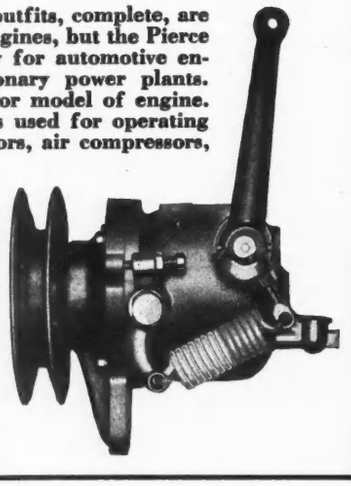
Pierce

***Universal* Governors**

***Meet Every Requirement*—Pierce Governor outfits, complete, are available for nearly all standard industrial engines, but the Pierce Universal Governor was developed especially for automotive engines that have been converted into stationary power plants. These governors can be used on any make or model of engine. They are suitable for governing any engines used for operating pumps, welding generators, lighting generators, air compressors, hoists, etc.**

CLOSE REGULATION—Pierce Universal Governors are belt driven and either flat or V-belts may be used. The governors are of the centrifugal (or flyball) type and respond instantly to each change in engine load, maintaining a uniform speed regardless of load variation.

Because of their efficiency, Pierce Governors have been regular equipment on a majority of the standard industrial engines and on various types of industrial machines. No better governors are obtainable. Write for literature and prices.



The Pierce Governor Co.

600 Ohio Avenue, Anderson, Ind.

Spencer-Cloutier's Tweedy 2, NE SW 25-33n-6w, will make an average completion at 2982 feet.

Three new locations for the field include: Dakota Montana Utilities Company's Matson 2, NE NW 14-34n-6w; R. E. Lee Alloted 137 1, 1980 feet west of the east line and 2070 feet south of the north line of 26-33-6; and Whetstone's Tribal 125, 820 feet south of the north line and 785 feet west of the east line of 12-32-6.

After treatment with acid the Bert Smith's Haugen 1, SE SE NW 2-35n-3w, Kevin-Sunburst field, Toole County, northern Montana, completed as an excellent well when it flowed 360 barrels in twenty-four hours from 1915 feet. The well is on Rocky Ridge Dome and flowed 100 barrels natural last week. Kevin-Sunburst field has been getting an active drilling play this spring and 20 rigs are going in the field.

Montana-Dakota Utilities Company's Unit 1, NE NE NW 17-4n-62e, on Little Beaver Dome, Baker-Glendive anticline, Fallon County, eastern Montana, plugged back to 6765 feet and is testing production. Before the well was plugged back total depth was at 6804 feet. Same company's Smith 1, CNE SW 8-4n-59e, has derrick up waiting for equipment.

MOUNTAIN STATES
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
MONTANA		
GLACIER COUNTY (Cut Bank Field)—		
Wilkinson, Tribal 1, 126, ne nw 7-32n-5w	250	2868
Santa Rita Oil & Gas Co., McCabe Permit 2, nw sw nw 31-33n-5w	40	2835
Consolidated Gas Co., Nadeau Alloted 114, Lot 8, 31-33n-5w	35	2948
WYOMING		
NIOBARA COUNTY (Lance Creek Field)—		
Continental Oil Co., Joss 4, 90 ft. west of csw ne 6-36n-65w	8488	3887
Argo Oil Co., Elliott 7, cne sw 5-36n-65w	240	4009
ALBANY COUNTY (Quealy Dome Field)—		
California Co., Wilson 1, nw sw sw 18-17n-76w	252	3398
WESTON COUNTY (Osage Field)—		
Albert Jones 12, csw ne 21-46n-63w	4	424
COLORADO		
ARCHULETA COUNTY (Price Field)—		
Wm. E. Hughes Estate, Fee 7, ne se se 24-33n-2e	1000	....
NEW MEXICO		
LEA COUNTY (Eunice Field)—		
Tide Water Oil Co., State 1-G, c se ne 21-21s-36e	2000	3906
LEA COUNTY (North Eunice Field)—		
Ohio Oil Co., W. H. Turner 1, c ne se 29-21s-37e	70	3800
LEA COUNTY (Hobbs Field)—		
Shell, Sanger Inv. Co. 4, swc nw 27-18s-38e	7474	4221
LEA COUNTY (East Jal Field)—		
Repollo Oil Co., J. T. Lanehart 1, se nw nw 28-25s-37e	200	3302
LEA COUNTY (Monument Field)—		
Anderson-Prichard Prod. Corp., State-Ohio Fuel 1, c sw nw 2-20s-36e	1200	3910
Conoco & California Co., H. M. Britt 2-A-6, c nw sw 6-20s-37e	2500	3895
Empire O. & R. Co., State 3-E, c nw sw 30-19s-37e	3000	3965
Gulf Oil Corp., State-Graham 3-C, c sw ne 24-19s-36e	250	4050
State-Graham 4-C, c sw se 24-19s-36e	900	4017
Ohio Oil Co., State-Elliott 3, sw sw se 30-19s-37e	4000	3935
Repollo Oil Co., B. J. Barber 2, nw ne ne 7-20s-37e	3600	3894

*Failures; †Junked; ¶Million cu. ft. gas.

Drilling Revived

SHOWINGS IN TWO WELLS IN MONTEBELLO RESPONSIBLE

WEEKLY STAFF REPORT

Los Angeles.—Activity in Montebello field has increased considerably as a direct result of completion June 16 of Richfield Oil Company's Nutt 1 flowing 3500 barrels a day of 37 gravity oil cutting 6 percent, and 1,400,000 cubic feet gas, and of the favorable formation test of The St. Helens Petroleum Company's P. & B. 7.

Standard Oil Company of California's Baldwin 86 has been spudded and is being drilled at 1783 feet. Universal Consolidated Oil Company and Richfield Oil Company are building rig for Nutt 1-J, a joint well, and The Texas Company has staked location for Baldwin 14.

On June 18 Richfield Oil Company's Nutt 1 produced 3121 barrels of 39 gravity oil cutting 3 percent, and 3,500,000 cubic feet of gas, through 1½-inch choke, with tubing and casing pressures of 165 pounds and 1150 prounds, respectively. Depth is 5901 feet, with 9-inch water string cemented at 5400 feet, 553 feet of 6⅝-inch liner, including 506 feet perforated, landed on bottom, and 2½-inch tubing hung at 5312 feet. Production is from both upper and lower Nutt zones.

The St. Helens Petroleum Company's P. & B. 7, Section 6-2s-11w, was tested June 17 with a formation tester, and 46 stands of oil and 2 stands of mud and water were recovered in 30 minutes. After 12 stands of the drill pipe had been removed, oil flowed from the drill pipe for 13 minutes. As a result of this test, 9-inch casing will be cemented at 5390 feet. Bottom of the hole is 5585 feet in oil sand, and coring will be continued after testing the shut-off and before completing the well.

Richfield Oil Company's Ciocco 1, Section 5-2s-11w, is being cored ahead in brown shale at 6780 feet. Universal Consolidated Oil Company's Pasadena 2, Section 6-2s-11w, is being drilled in sand and shale at 2600 feet. Universal Consolidated Oil Company's Ciocco 1, Section 5-2s-11w, is standing cemented with 16-inch surface casing set at 863 feet.

Shell Oil Company has staked the location for Anaheim Sugar 3-1 in Section 7-6s-10w, in the salt marsh between Huntington Beach old field and the Santa Ana river. This location falls slightly north of a projection of the fault against which the oil is believed to have been trapped in the old field. It is possible that a similar fault accumulation is expected in the vicinity of this new location.

General Petroleum Corporation's Terminal 1, important wildcat well on Terminal Island in Los Angeles harbor, was recompleted on a short production test on June 22 flowing 200 barrels a day of 16.8 gravity oil cutting

New Gas Field

NEARNESS TO SAN FRANCISCO MAKES STRIKE IMPORTANT

Los Angeles.—Amerada Petroleum Corporation's Emigh 1, Solana County, was completed June 19, flowing 8,750,000 cubic feet of gas, with tubing and casing pressures of 1375 pounds and 1700 pounds, respectively. Total depth is 4485 feet, with 11¾-inch water string cemented at 4278 feet and 215 feet of 6⅝-inch perforated liner landed on bottom. The completion of this wildcat project, located in Section 26-4n-2e, is of major importance due to its proximity to the San Francisco bay region where large markets are available and the nearest adequate supply is Kettleman Hills, more than 200 miles southeast. The Amerada well is situated on the north side of Suisun Bay, the northeast arm of San Francisco bay into which the Sacramento and San Joaquin rivers empty, and is about 10 miles north and 5 miles east from Antioch. Since the oil and gas lines to the Bay region from the San Joaquin valley pass through Antioch, the marketing problem will not be difficult except that the gathering lines must cross the tide-swept mouths of both the Sacramento and San Joaquin rivers.

THE LAYNE

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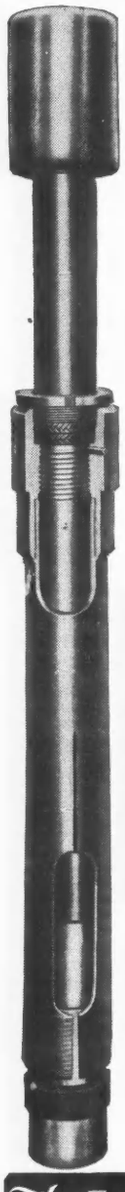

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HOUSTON · TEXAS

16 to 18 percent. The well was killed after about 24 hours production and the oil string is being pulled preparatory to deepening by coring. There was no tubing pressure, and the casing pressure varied between 100 and 115 pounds. This test was merely routine and in line with the operator's policy of testing each oil sand as it is encountered. Depth is 3019 feet, with 9-inch water string cemented at 2430 feet, 4¾-inch oil string, including 295 feet perforated on bottom, landed at 3015 feet, and 2½-inch tubing hung at 2558 feet. This well was originally bottomed at 2694 feet and completed on a temporary production test on June 11 flowing 86 barrels a day of 13.2 gravity oil cutting 12 percent. A considerable area is believed to be proven by this well.

Heavy Leasing

Very extensive leasing campaigns have been in progress during the past week near the center of the area between Bakersfield and Elk Hills oil field, with most of the major and many of the independent operators participating. The campaigns are divided chiefly along two parallel N.W.-S.E. trends, each being, undoubtedly, the direct result of the recent completion of Shell Oil Company's K.C.L. 1 in Section 29-30s-26e.

One of these trends extends southeastward from Buttonwillow gas field through the area of the Shell well, and includes about three sections of Kern County Land Company's property on the South Dome of Buttonwillow acquired by Seaboard Oil Corporation, about 2½ sections acquired by Superior Oil Company and two sections by General Petroleum Corporation, and others, centered in Sections 17 and 26-29s-24e, and about 2500 acres blocked up by Superior Oil Company and others centered south of Old River in Section 8-31s-27e.

The second line of trend lies about six miles northeast of the first and, extending southeastward from Semitropic gas field through Rio Bravo and Gosford, includes large blocks of acreage near Rio Bravo and an area blocked up solid by various companies and centered in Sections 19 and 29-30s-27e.

Scattered leases are also being recorded by various companies in the area between Shell Oil Company's K.C.L. 1 and Elk Hills oil field.

An unconfirmed report is to the effect that the shallow gas zone rights are held by the Milham Exploration Company on the S. P. Land Company's property in the Buttonwillow gas field, and that the deep, possible oil producing zones have been leased to another major operator.

Midway-Sunset area east of Maricopa in Kern County again holds the greatest share of proven field interest, with 7 new locations and 3 new completions during the week. At present, drilling wells and wells proposed to be drilled total 27, and 4 uncompleted wells are standing idle. New locations were announced during the week for the following wells: Desert Glow Oil Company's Mt. Diablo 1; Fenrey Oil Company's Havelin 1; Garner Royalties Company, Ltd.'s, Garner 1; Gibson Oil Company's Francis 2 and O'Brien 1; North American Oil Consolidated B-2; Quality Oil Company's W. P. 2. In addition, Union Oil Company is pulling 8⅝-inch casing in Lakeview 8 and preparations are being made to deepen.

CALIFORNIA

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
MONTEBELLO—		
Richfield Oil Co., Nutt 1	3500	5901
REDONDO—		
Pongratz Pet. Co., No. 1	175	3649
Redondo Oil Co., Regent 1	175	3568
SANTA FE SPRINGS—		
Union, Howard 17	175	4387
KERN FRONT—		
C. C. M. O. Co., No. 61	85	2260
General, Young 43	300	1937
National Oil Co., Universal 2	75	1902
MOUNTAIN VIEW—		
A. T. Jergins Trust, Blackburn 2	190	5241
MOUNT POSO—		
General, Heisen 30	220	1577
ROUND MOUNTAIN—		
Barnsdall, Caldwell 6	260	1695
Shell, Caldwell 6	200	1625
KERN COUNTY—		
Pioneer Holding Co., Pioneer 2	*	2360
SANTA BARBARA COUNTY—		
Hall-Baker Co., Preisker 5	*	2200
La Canada Oil Corp., No. 1	*	1141

*Failures; †Junked; ¶Million cu. ft. gas.

MICHIGAN

WEEKLY STAFF REPORT

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CRAWFORD COUNTY—		
T. F. Caldwell, Inc., Huston 1, 25n-1w, nw sw sw-7	*	3200
GLADWIN COUNTY—		
M. F. Whitehill, Bell 1, 17n-2w, sw sw se-2	150	3897
Goll, Graves, Mechling, Wixom 1, 17n-1w, sw sw ne-35	*	1425
GRATIOT COUNTY—		
Gordon Oil Co., Shaver B-1, 10n-4w, c se nw-4	¶5½	975
HURON COUNTY—		
Wallace Markle, Opaka 1, 15n-11e, ne ne se-4	*	3008
IONIA COUNTY—		
Frank Lyon, Geiger 1, 8n-8w, sw nw nw-29	*	2975
ISABELLA COUNTY—		
E. Schelling, Varney 1, 15n-3w, ne se sw-34	150	3590
MECOSTA COUNTY—		
Ed. Stewart, Houghton 5, 13n-7w, c ne nw-33	¶8½	1314
Mohawk Oil Co., Keilholtz 1, 13n-7w, c nw nw-33	¶10	1320
Columbia Oil Co., Sweet 1, 13n-8w, c se ne-23	¶3½	1334
MIDLAND COUNTY—		
Rex Oil Co., Howland B-1, 13n-1w, nw nw sw-23	90	3420
Pure Oil Co., Bond-Rayner 1, 13n-1w, se nw se-11	*	3016
Holden A-1, 13n-2w, se nw ne-13	150	3448
MONTCALM COUNTY—		
Midland Petrol, Highbee 1, 12n-7w, c ne nw-9	¶26	1309
Hyatt & Norton, Sutherland 2, 12n-7w, c sw ne-5	¶19	1304
Wolverine Natural Gas Co., Richardson 1, 12n-7w c sw se-3	¶77	1283
Jetter Oil Co., Pitcher 1, 10n-5w, se se nw-5	*	3272
Daily Crude Oil Co., Fulford 2, 11n-5w, se nw sw-36	120	3201
Snyder Drilling Co., Williams 1, 11n-5w, sw sw se-36	110	3191

*Failures; †Junked; ¶Million cu. ft. gas.

Greater Interest

SOUTHWESTERN INDIANA IS BECOMING MORE ACTIVE

EASTERN FIELDS — WEEKLY STAFF REPORT

Vincennes, Ind.—Interest in deep drilling has been revived in southwestern Indiana by activity of major companies from the Mid-Continent area.

Men who have spent much time in the fields during the past few months, have shown an interest in looking for oil in Trenton limestone which in this district is found at 4000 to 5000 feet.

The leasing activity has been slightly offset by recent developments in the opening of new gas fields in this district. Two wells have been brought in by Oliphant and Sage et al in a new field three miles southwest of Loogootee, Indiana, and other operators have rushed into the field and started work immediately.

One of the Oliphant and Sage wells produced 1,250,000 cubic feet of gas on the George Price farm in Daviess County. The other well made 2,250,000 cubic feet and is located on the P. Furhman farm in the same district. Both wells maintained a rock pressure of 215 pounds and were completed at approximately 580 feet.

This production has extended the old Loogootee gas field two miles southwest of the old site where gas has been produced constantly and in good quantities since 1898. This old field is considered one of the best in Indiana and is the oldest field in constant commercial operation.

In Barr township, Daviess County, where the new field is located, leasing activity has increased greatly and oil operators have taken all available holdings along the flank of the new structure, hoping to find oil here.

Oil operators believe that there is a strong possibility that the new structure continues toward the southwest where oil has been and is being produced in the Cannelburg oil pool. This pool was opened in 1914. When discovered it caused much excitement and a large percent of the wells are still producing steadily. Oil is produced here at about 625 feet.

Companies now drilling in the new Loogootee gas field include Oliphant and Sage, of Vincennes; Midwest Development Corporation, Vincennes; A. T. Spaulding et al, Loogootee; and Hart Brothers, Cannelburg.

On the edge of the new gas field, Norris and Amsler, Washington, Indiana, are drilling for oil, expecting to find it in the Mississippi limestone at 1000 to 1500 feet.

Two of the Mid-Continent companies have shown particular interest in this well and have men watching its progress. The 1500-foot depth is considered deep for this field and may lead to deeper drilling if it is successful.

Drillers of this well have been encouraged by the production of a 25-barrel well on the L. E. Dickerman farm in Pike County, not far away. This well produced in the Mississippi limestone at 1651 feet. Harry Hanson et al are now drilling an offset to the Dickerman well on the Jess Campbell farm. These wells are in the edge of the Union field.

In Columbia township, Gibson County, Midwest Development Corporation is drilling a test well 1½ miles southwest of the Francisco field.

Extension of the Hudsonville gas field, Harrison township, Daviess County, was seen in the production of a half million foot gas well drilled in by Van Ruble et al on the Albert Bachellor farm.

Pike County activity includes a 55-barrel well on the Ora Waltz farm in Clay township by Murphy Oil Company of Pennsylvania, at 1061 feet.

Gas fields in northern Knox County, Busseron township, brought Phillips Petroleum Company a 1,500,000 foot gas well in J. A. McAndrews 2. Nellie Waldron 1 is being drilled by Bruce McCloud, and Loyd and Parker are drilling No. 2 on the same farm.

Increased activity in the Perry County field has brought both oil and gas production. The Norman Jarbo 2 by Haney and Hollingsworth in Anderson township was a good oil well. Elizabeth Gramerspacher 1 produced 3,250,000 cubic feet of gas at 549 feet in a hole drilled by Haney and Hollingsworth. They are also drilling Kate Hug 1. Nollem Oil & Gas Corporation's Martha Hennan Estate 2 is a good gas well. No. 3 on the same farm by the same operators was a fair gas well.

EASTERN FIELDS
Completions

OHIO

Company, Well and Location	Init. Prod. Bbls.	Depth
ASHLAND COUNTY—		
Ohio F. G. Co., Caroski 1	*	2872
Leo E. Koons 1	¶	2610
HARDIN COUNTY—		
Waltermire & Co., Ziegler 1	¶	1334
Kenton O&G Co., Hamilton 2	¶	1353
WYANDOT COUNTY—		
Ray C. Jones, Schindler 1	*	1514
Kenova O&G Co., Horn 1	*	1531
WAYNE COUNTY—		
Ohio F. G. Co., Alleman 1	¶	3251
Hockenberg 1	¶	3007
RICHLAND COUNTY—		
Ohio F. G. Co., Mansfield B&L 1	¶	2421
HOLMES COUNTY—		
Ohio F. G. Co., Snively 1	*	2904
Tidball 1	¶	3274
Bell Bros., Findley 3	¶	812
SUMMITT COUNTY—		
Brooks & Johnson, Bowman 1	¶	450
COSHOCTON COUNTY—		
Upham Gas Co., Spurgen 1	¶	2997
STARKE COUNTY—		
East Ohio Gas Co., Keck 1	¶	4326
Albright 2	*	4340
PERRY COUNTY—		
Ohio F. G. Co., Rhodes 1	¶	3224
CUYAHOGA COUNTY—		
Schneider & Wyles, Simmons 1	*	2512
C. A. McMillan, Geisendorfer 1	*	....
LICKING COUNTY—		
Rutledge & Mossholder, Central Area 1	15	....
KNOX COUNTY—		
Upham Gas Co., Swingle 1	*	....
ATHENS COUNTY—		
Ohio F. G. Co., C C C O 1	¶	1198
Fairfield Gas Co., Harris 4	¶	645
A. B. Townsend, Shelton 1	¶	465
Ohio F. G. Co., McCornwell 1	*	921
Hoard 3	¶	1255
SENECA COUNTY—		
Industrial Gas Co., Sherger 5	¶	500
Harpester & Co., Sendelberg 1	¶	505
WASHINGTON COUNTY—		
Charles H. Vaughn, Vaughn 8	*	861
Schneider Oil Co., Covey 7	5	1233
Ohio F. G. Co., Knox 1	*	1883
Burt & Co., Morris 26	1	645
Layde Farm Oil Co., Layde 4	*	1326
PUTNAM COUNTY—		
Shipe & Perry, Rodgers 1	25	1325

INDIANA

PIKE COUNTY—		
Murphy Oil Co., Waltz 1	55	1061
Harry Hanson & Co., Campbell 1	25	1651
HANCOCK COUNTY—		
J. Harve Snider, Nicholson 1	¶	918
HUNTINGTON COUNTY—		
E. Lantz, Wiley 4	25	....
PIKE COUNTY—		
Discount Manager Corp., Cassidy 3	*	2114
DECATUR COUNTY—		
Hossler Public Utility, Smith 4	¶	926
VANDERBURG COUNTY—		
Evans O&G Co., Birch 1	*	....
PIKE COUNTY—		
Roid, Parson & Havens, Carmody 1	¶	1210
PERRY COUNTY—		
Nollem O&G Corp., Hennen 2	¶	....
Hennen 3	¶	....
Haney & Hollingsworth, Jarbo 2	30	....

KENTUCKY

OHIO COUNTY—		
Kentucky Nat. Gas. Co., Rogers 14	90	....
Rogers 13	115	....
Ekis & Co., Richards 2	*	....
MUHLENBURG COUNTY—		
Ohio Oil Co., Kennedy 2	30	....
McLEAN COUNTY—		
Hupp, Duff & Co., Graham 1	85	....
MADDOX POOL—		
W. E. Hupp & Co., Westerfield 2	45	....
Penn-Indiana Oil Co., Lawham 2	8	....
Teller & Co., Medcalf 2	20	....

WEST VIRGINIA

CABELL COUNTY—		
W. C. Kingery & Co., Pratt 4	¶	....
Sun Gas Co., Gill 2	¶	....
R. H. Adkins & Co., Morrison 1	¶	....
Home Gas Co., Woodall 1	¶	....
KANAWHA COUNTY—		
Columbia Carbon Co., Copenhaven 3	¶	....
Robertson 1	*	....
ROANE COUNTY—		
Linden Drilling Co., Ferrell 1	*	....
H. H. Staats, Petty 3	¶	884
Thomas Ferrell & Co., Ferrell 1	*	1818
WASHINGTON COUNTY—		
O. B. Cunningham & Co., Perdew 1	¶	....

*Failures; †Junked; ¶Million cu. ft. gas.

More than 1,000,000 workers are employed by the petroleum industry, which produces oil in 22 states, refines it in 35, and markets oil products in all states.

THE OIL WEEKLY REPORT ON IMPORTANT

Wildcat Tests

ALABAMA

HOUSTON COUNTY — Rice O&G Co.'s Oakley Est. 2, 9-3n-29e, sd 3580 ft.

MOBILE COUNTY—J. C. Prine's King 1, 4-1n-4w, ow pb to 2600 ft, arr test, old td 3186 ft.

ARKANSAS

BRADLEY COUNTY—Phillips Pet. Co.'s Murphy Land Co. 1, nw nw 12-17-11, 13-in csg 740 ft, dr 2500 ft.

CALHOUN COUNTY — Ben Barnett Tr.'s Freeman Smith 1, se nw sw 36-15-14, ccre 4988 ft. Proetz & Brown's Calion Lbr. Co. 1, se sw 22-15-15, 10-in csg 647 ft, dr 3500 ft.

COLUMBIA COUNTY—J. C. Buckbee Tr.'s J. B. Wilson 1, sw ne 17-17-18, elev 319 ft, sd 4510 ft, contract depth.

CRAWFORD COUNTY—Trumbo et al's Craddock 1, c nw ne 3-11-30, top Miss. lime 965 ft, top Wilcox 1527 ft, sd 1600 ft.

DALLAS COUNTY—Kel-Mac Oil & Roy. Co.'s Owens 2, nw sw 26-10-16, sd 1925 ft.

HEMPSTEAD COUNTY—Easton & May's Conway 1, ne sw 20-12s-27w, elev 290 ft, massive anhydrite 1913-69 ft, tested brackish water & some dead oil 2612-23 ft, coring 2754 ft asphaltic sand (lower Trinity).

LA FAYETTE COUNTY—A. M. Neely's Meek 1, ne nw 35-19-25, rur. Ohio Oil Co.'s Bodcaw Lbr. Co. 3, nw nw 20-16-23, elev 250 ft, cored porous colitic lime 7666-97 ft, tested sg & 2200 ft sw ds test, pb to perf & test at 3525-35 ft, old td 7707 ft, top Permian.

LITTLE RIVER COUNTY—Roberts et al's Hall 1, se se 22-13-29, owdd, td 1950 ft.

LONOKE COUNTY—Frank F. Silver's Jos. Chambers Est. 1, sw ne nw 17-2-27, elev 229.2 ft, sd 1610 ft, hd shale.

MILLER COUNTY—King Oil Corp.'s Mann 1, 2-16-26, 10-in csg 200 ft, top Nacatosh 1605 ft, dr 1615 ft shale. Deep Rock Oil Co.'s Williams 1, nw sw nw 6-16-25, top Nacatosh 1270 ft, dr 4720 ft shale. Joiner et al's (formerly Odell Hinson et al) Montana Realty Co. 1, 3-17-28, top Arkadelphia 1060, dr 1192 ft chalk.

OUACHITA COUNTY—Rhoda Armstrong's Bragg 1, se nw 25-13-18, 12½-in csg 52 ft, dr 1350 ft shale. Carnes & Harrell's Robertson 1, nw se 7-12-19, elev 176 ft, sd 2487 ft chert. O. F. Whittaker's Howard 1, nw ne 20-12-16, dr 2305 ft (corrected depth). Lion O. R. Co.'s Reynolds-Berg 1, se ne 28-15-15, arr ds test 4810-20 ft. Phillips Pet. Co.'s Arnold 1, ne sw 27-15-15, dr sandy lime 4750 ft; Cheatham 1, sw ne 27-15-15, dr 4873, red beds and shale; J. M. Farris 1, sw ne, ready to sp; Rose 1, ne se 28-15-15, dr 3588 ft, hd sandy lime; Harris 1, sw ne 28-15-15, reconditioning mud, td 4869 ft; Mary Murphy 1, ne ne 28-15-15, dk; Mary Murphy 2, ne ne 28-15-15, lcn. Standard's Reynolds B-3, se ne 27-15-15, cemtd 8⅝-in csg 4892 ft, flowing 85 bbls 57 grav oil and 6 mil ft gas per day through tub choke td 4912 ft, Permian lime. Reynolds B-4, nw sw 27-15-15, rur. American Liberty Oil Co.'s (Jno Pugh) Hildebrandt 1, se se 28-15-15, elev 162 ft, 7-in csg 4904 ft, td 4914 ft. J. E. Crosbie, Inc.'s Sewell 1, sw ne 33-15-15, mim.

UNION COUNTY—J. C. Buckbee Tr.'s Ezzell 2, ne nw 13-17-15, coring sand 4836 ft.

CALIFORNIA

FRESNO COUNTY

CURRY MOUNTAIN—Standard's Camino 1, 1-21-15, spud June 17.

CANTUA CREEK—Western Gulf's S.P.L. Co. 3, dr sand and shale 6311 ft.

KERN COUNTY

KERN FRONT—American Explor. Co.'s Exploration 1, 16-28-27, td 2862 ft, tested wet, recemented.

POSO CREEK—Bargol Oil Co.'s Bargol 1, 11-27-27, dr brown shale 3010 ft.

ABBREVIATIONS

The following abbreviations, signs, etc., are used in completions and wildcat reports in THE OIL WEEKLY.

*—*dry hole abandoned well.*	owdd—*old well drilling deeper.*
‡—*salt water (completions).*	owpb—*old well plugging back.*
†—*junked and abandoned.*	pb—*plugged back or plugging back.*
¶—*million feet of gas.*	r—*reaming.*
abd—*abandoned.*	rog—*rig on the ground.*
bbls—*barrels.*	rur—*rigging up rotary tools.*
br—*building rig.*	rust—*rigging up standard tools.*
b.s.—*basic sediment.*	sd—*shut down.*
csg—*casing.*	sdtr—*sidetracking.*
co—*cleaning out.*	sg—*show gas.*
dd—*drilling deeper.*	si—*shut in.*
dk—*derrick.*	so—*show oil.*
dr—*drilling.*	so & g—*show oil and gas.*
fsg.—*fishing.*	spd—*spudding.*
ft—*feet.*	sr—*straight reaming.*
hfw—*hole full of water.*	sw—*salt water.*
in—*inches.*	td—*total depth.*
lcn—*location.*	ur—*underreaming.*
m—*milling.*	wih—*water in the hole.*
mim—*moving in materials.*	wo—*workover.*
mit—*moving in tools.*	wocs—*waiting on cement to set.*
mot—*milling on tools.*	wosr—*waiting on standard rig.*
n, s, e, w—*north, south, east, west.*	
oih—*oil in hole.*	

SO. MARICOPA—E. A. Bender's Robinson 1, 14-10-23, dr shale 605 ft.

POSO CREEK—Bourke & Dyer's Stockton 1, 28-26-28, lcn.

DEVIL'S DEN—Den Pet. Co.'s Bates 1, 20-25-19, rig.

ELK HILLS—Elk Hills Pet. Corp.'s No. 1, 14-31-24, ready to spud.

GRAPEVINE—Hall-Baker Co.'s No. 1, 12-10-19, dr shale 305 ft.

MOUNT POSO—R. S. Lytle's Dorsey 3, 26-27-28, td 1461 ft, testing on pump.

POSO CREEK—McAdams Oil Co.'s No. 1, 32-27-28, rur.

DOMINION — Modoc Pet. Co.'s Vedder-Bowles 2, 21-26-28, spudded June 16, dr.

MOUNTAIN VIEW — Mohawk Oil Co.'s Earl Fruit 1, 10-31-29, dr sand and shale 4898 ft.

STRAND—Ohio Oil Co.'s K.C.L. D-1, 1-30-25, dr sand and shale 8332 ft. T.I.T. 1, (Grapevine) 36-11-19, dr sand and shale 3725 ft.

MOUNT POSO—Poso Pet. Co.'s No. 1, 2-27-27, sd 2004 ft.

GRAPEVINE—Reserve O&G Co.'s Ritchie 33-2, 33-11-19, spudded June 14, dr; Tejon 2-6, 2-10-19, rigging up.

NO. BELRIDGE — Rio Grande Oil Co.'s Layman 1, 18-28-20, rigging up.

EDISON—R & R Dev. Co.'s R & R 3, 32-30-30, td 872 ft, wocs 8⅝-in at 360 ft.

DOMINION—Santa Carla Oil Co.'s Bass-Goodknight 1, 19-26-28, dr shale 1160 ft.

KERN RIVER—Seven Spot Oil Co.'s No. 1, 13-26-27, dr shale 1228 ft.

STEVENS AREA—Shell's K.C.L. 2, lcn, no section yet.

LOST HILLS—Standard's United 1, 2-26-20, dr hard gray sand 6595 ft.

COMANCHE POINT — Tejon Ranch Oil Co.'s Tejon 1, 23-3-29, sd 2394 ft.

SAN EMIDIO—Texas Co.'s K. C. L. C-11-49, 11-11-22, td 7622 ft, co at 5924 ft.

MOUNTAIN VIEW — Treasure Dr. Co.'s Treasure 2, 12-30-28, dr shale streaks sand 5390 ft.

McFARLAND—Woods & Bailey's No. 1, 16-26-26, sd 4488 ft.

MISCELLANEOUS

HUMBOLDT COUNTY—Texas Co.'s No. 2, 22-3-1, dr 4364 ft.

KINGS COUNTY—Associated's No. 1, 35-23-17, spudded June 17. Horndall & associates' Spreckles 1, 16-24-18, td 4201 ft, plug 1985 ft, to test on pump.

MADERA COUNTY—Pure Oil Co.'s Chowchilla 4, 20-10-14, dr shale 2406 ft.

MERCED COUNTY—E. R. Frantz's Cunningham 1, 22-7-16, lcn.

SAN BENITO COUNTY—Associated's Murphy Ranch 1, 5-12-4, lcn.

SAN LUIS OBISPO COUNTY—Avila Oil Co.'s No. 1, 10-31-13, rig. Barnsdall's Wreden 1, 24-28-17, td 3473 ft, redr to 3550 ft, to set 8⅝-in. Birch-Royer Oil Co.'s Patchett 1, 33-31-13, td 1840 ft, redr to 1540 ft. J. C. Theriot's Holland 1, 22-32-23, sd 2135 ft. Willett Oil Assn's Jack 2, 10-25-15, td 3648 ft, plug 3000 ft, sd.

SOLANA COUNTY — Amerada's Emigh 1, (Rio Vista) 26-4n-2e, td 4485 ft, 11¾-in at 4278 ft, ran 215 ft 6⅝-in liner, made 8,750,000 ft gas, tubing pressure 1375 lbs and 1700 lbs on casing.

TEHAMA COUNTY — Northern Cos. Pet. Co.'s Ewers-Mooney 1, 25-24-3, dr hard sand and shale 7864 ft.

TULARE COUNTY—W. H. Fortine's Mosesian 1, 22-27-26, dr shale 2357 ft.

MONTEREY COUNTY — North Dome-Cholame Hills Oil Co.'s Hillman 1, 15-24-14, rig. Shell's Branch 1, 34-24-10, td 8994 ft, testing to locate water.

SANTA BARBARA COUNTY

COAL OIL POINT—Bankline Oil Co.'s No. 2, permit 191, td 5510 ft, redr at 2164 ft.

SANTA MARIA—Hall-Baker Co.'s Priesker 5, 12-9-34, abn at 2200 ft.

EL CAPITAN—La Canada Oil Corp.'s No. 1, 35-5-30, abn 1141 ft.

LOMPOC—Lompoc Pet. Co.'s Beauterbaugh 2, 18-7-34, sd 3940 ft.

BETTERAVIA—E. H. Moore's Union Sugar A-1, 25-10-35, dr shale 4115 ft.

LOMPOC—York Oil Co.'s York 3, 33-8-34, rur.

VENTURA COUNTY

SHIELLS CANYON — Bankline Oil Co.'s Calumet B-1, 3-3-19, td 4617 ft, reperforated 4484-4560 ft, pumping 65 bbls, 33 gravity oil, cut 10 percent. Petroleum Securities Co.'s Home Ranch 3, 3-3-19, dr and testing 3765 ft; Elkins 1 (Bardsdale) 7-3-19, td 5627 ft, plug 1865 ft. Texas Co.'s Shiells 129, 4-3-19, sd 4812 ft; No. 130, dr 3428 ft; No. 131, td 3272 ft, r.

BARDSDALE—Bestco Pet. Co.'s Frey 1, 2-3-19, dr red shale and gray sand 4240 ft. Union's Dryden 10, 12-3-20, dr hard shale 6070 ft.

SO. MOUNTAIN—Calco Pet. Corp.'s Calco 3, 17-3-20, td 3465 ft, bailing.

SESPE—Calkan Pet. Co.'s No. 1, 23-5-20, dr 257 ft. Condon Oil Co.'s No. 1, 6-4-19, dr 1230 ft. Speik Oil Co.'s No. 1, 35-5-19, dr 300 ft. Topo Topo Oil Co.'s No. 3, 33-15-19, dr 1250 ft.

OXNARD—General's McGrath 2, 26-2-35, dr hard shale 7812 ft; Padre 1 (Javen), 15-3-24, grade.

SO. MOUNTAIN — Honolulu Oil Corp.'s Hobson 1, 23-2-21, rur.

SESPE CANYON—Merchants Pet. Co.'s No. 1, 1-4-20, bldg tramway.

VENTURA—Ventura Explor. Co.'s Sexton 1, 30-3-22, dr gray sand and shale 7716 ft.

SOUTHERN CALIFORNIA

NEWHALL—Barnsdall's Rancho S. F. 1, 26-4-17, lcn. Holbrook Pet. Corp.'s Newhall L & F Co. 1, 26-4-16, technical spud June 13. Yant Pet. Corp.'s Yant 5, 1-3-16, testing 2022 ft.

ARTESIA—M. T. Bernstein's Millard 1 (was Vanco Dev. Co.), 25-3-12, dr soft sand and shale, 4281 ft.

NO. LONG BEACH—Geo. L. Clayton's No. 1, 31-3-12, sd 6765 ft.

TORRANCE—Codri Oil Co.'s No. 1, 28-4-13, sd 3902 ft. Eyer Pet. Corp.'s No. 1, 20-4-13, td 3794 ft, pumping 100 bbls, 13 gravity oil, cut 10 percent. Jas. S. Hull's No. 1, 20-4-13, dr shale 3120 ft.

PUENTE—McVar-Rood's Sentous 1, 6-2-9, dr shale streaks sand 2570 ft. Numac Oil Co.'s Rowland 2 (was Vega Pet. Corp.), 14-2-10, td 2545 ft, plug 2500 ft, pumping 60 bbls, cut 50 percent.

PALOS VERDES — Pama Royalty Co.'s Burkhard 1, 2-5-14, rig.

ROSECRANS—Republic Pet. Co.'s Republic Trust 1, 18-3-13, dr shale 4360 ft.

EL NIDO—Shell's Lloyd-Dabney 1, 33-3-14, foundations.

DOMINGUEZ—West American Oil Co.'s Del Amo 1, 3-4-13, td 9000 ft, ran 5¾-in to bottom, including 505 ft of perforated, wocs.

PLACENTIA—Calif. Eastern Oil Co.'s Verde 1, 35-3-9, dr 3300 ft.

NEWPORT—Commander Oil Co.'s Mesa 1, 29-6-10, td 2121 ft, pumping a little heavy oil.

WESTMINSTER—Hillman & Long's No. 1, 14-5-11, td 7701 ft, wocs, 8⅝-in at 5585 ft.

HUNTINGTON BEACH—Shell's Anaheim Sugar 3-1, 7-6-10, lcn.
SUNSET BEACH—Geo. Terry's Gun Club 1, 17-5-11, sd 5200 ft.
SAN BERNARDINO COUNTY—Equitable Pet. Explor. Co.'s No. 1, 11-10-5, dr hard sand 2363 ft. Tehama Pet. Co.'s Pellissier 1, 4-3-8, dr shale 465 ft.

FLORIDA

HILLSBOROUGH COUNTY — Southern Pet. Co.'s Mizell & Williams 2, se ne 4-32s-21e, sd 965 ft.
JACKSON COUNTY — Mrs. Mamie Hammond et al's Grandberry 1, sw ne 15-5n-9w, top chalk 1960 ft, dr 2360 ft chalk.
LAKE COUNTY—Oil Dev. Co. of Fla.'s Gulf Expl. Co. 2, se se 17-24s-25e, elev 120 ft, coring 4218 ft, Selma chalk.
NASSAU COUNTY—St. Mary River Oil Corp.'s Bank of Hilliard 1, nw se 19-4n-24e, dr with ct depth not given.
POLK COUNTY—Dr. Edw. A. Hill's Polk Co. Lbr. Co. 1, nw ne 32-25s-25e, dk.

KANSAS

BARBER COUNTY—Sinclair Prairie's Gentry 1, ne ne ne 1-33s-15w, rur.
BARTON COUNTY—Davison et al's Birzer 1, sw se sw 22-17s-12w, sd 3250 ft. Schermerhorn Oil Co.'s Hunter 1, ne ne ne 29-18s-15w, pb 3543 ft. Wakefield & Johnson's Bumm 1, sw ne ne 22-19s-12w, fsg 2195 ft. Rosespring Drlg. et al's Rick 1, sw sw sw 1-19s-11w, dr 2285 ft. Brouk et al's Keil 1, se se ne 11-16s-15w, dr 365 ft. Rose & Lant's Redetzke 1, ne nw nw 10-16s-11w, dr 510 ft. Bailey et al's Hammeke 1, ne ne sw 12-18s-12w, rig.
BUTLER COUNTY—Ellis et al's Pettit 1-A, se se nw 21-28s-6e, sd 3163 ft. Rex & Morris' Olson 1, nw sw se 15-28s-6e, dr 3033 ft. McGinnis et al's Hinnen 1, ne ne sw 18-24s-4e, ru 8-in csg 1890 ft. Solomon's Church 1, sw ne se 8-28s-5e, sd 50 ft. Estes et al's Edgar 1, nw nw se 1-28s-8e, fsg 1030 ft. Dalton et al's Miley 1, csw ne 17-27s-5e, dr 270 ft.
CLARK COUNTY — Olson & Watchorn's Morrison 1, cse sw 17-32s-21w, mim.
COWLEY COUNTY—Wakefield et al's Daniel 1, se sw se 3-30s-3e, abd 3166 ft. Braden Prod. Co.'s Sparks 1, se se nw 35-33s-4e, dr 2610 ft. McKnabb's Community 1, cne nw 14-34s-3e, set 10-in csg 2070 ft. Benedum & Trees' Carson 1, sw sw nw 8-30s-4e, abd 3275 ft. Morton et al's Rogers 1, se se ne 1-31s-4e, sd 1230 ft.
EDWARDS COUNTY — Stanolind-Elwell's Donovan 1, cse se 14-25s-18w, dr 4280 ft.
ELLIS COUNTY—Jones Bros. & Carpenter et al's Solomon 1, se se sw 28-11s-19w, cemented 5-in csg 3629 ft. Bridgeport Mach. & J. J. Hall's Madden Estate 1, ne nw nw 26-15s-18w, co 3325 ft. Harris & Haun et al's Schmeidler 1, se se sw 3-13s-17w, td 3362 ft, 1600 ft oih. Rosespring et al's Union Pacific 1, ne ne ne 9-13s-20w, td 3468 ft, rust. Empire's Herl 1, se se se 22-15s-19w, fsg 2535 ft. Twin Drlg Co.'s Copeland 1, ne ne sw 26-14s-19w, td 3710 ft, 2125 ft oih 12 hrs. Parrish & Dennam's Walter 1, se sw se 14-13s-17w, ru 8-in csg 2740 ft. Jones & Shelbourn's Gunther 1, se se sw 9-11s-19w, sd 850 ft. Vickers Pet. Co.'s Kraus 1, sw sw nw 22-14s-19w, td 3444 ft, rust. Bradley Oil et al's Penny Wann 1, se se se 13-15s-20w, dr 2875 ft. Empire's Samuelson 1, ne ne sw 31-11s-16w, rig. Kansas Dev. Co.'s Haller 1, se se nw 10-11s-18w, dr 720 ft. Bridgeport Machine's Ubert 1, ne ne nw 12-13s-18w, dr 50 ft. Philham Oil Co.'s Gerstner 1, sw sw se 24-14s-17w, spd.
ELLSWORTH COUNTY—York State Oil Co.'s Koestle 1, nw nw se 12-17s-9w, spd. Roy Ramsey et al's Gregory 1, sw sw se 25-16s-9w, spd.
FINNEY COUNTY — Lone Star State's Hamlin 1, sw sw ne 31-24s-34w, td 2700 ft, ¾ M gas, comp.
GRAHAM COUNTY — Vickers & Phillips' Hutton 1, ne ne se 29-8s-22w, ru 8-in csg 3482 ft.
GREENWOOD COUNTY—McGinnis' Lampe 1, nw ne sw 26-24s-8e, dr 1240 ft.
HARPER COUNTY—Marathon's Zellers 1, csw nw 17-35s-8w, dr 4786 ft.
HARVEY COUNTY—Harburney Oil Co.'s Schrag 1, nw nw se 24-22s-3w, set 8-in csg 2870 ft, co. Shawvey's Judd 1, sw se ne 3-24s-2e, set 10-in csg 1908 ft. Phillips' Kaufman 1, ne ne nw 2-22s-2w, rur.
HASKELL COUNTY—Kuhn Bros. et al's Nilson 1, sw sw se 21-28s-32w, td 2409 ft, rust.
KINGMAN COUNTY—Lauck et al's Prather 1, cse 18-27s-8w, dr 4141 ft. Oklahoma Oil Corp. et al's Reeves 1, nw nw nw 29-27s-5w, dr 4150 ft.
McPHERSON COUNTY—Empire's Cunningham 2, se se se 26-18s-1w, td 2840 ft, wocs. Johnson et al's Johnson 1, sw sw nw 33-17s-1w, dr 2425 ft. Hawkins et al's Ritikofer 1, ne ne se 2-20s-1w, ru.
MEADE COUNTY—Pacific Midwest Co.'s Rexford 1, ne se sw 8-30s-29w, mim.
NESS COUNTY—Continental's Thompson 1, ce½ e½ sw 13-18s-26w, td 4462 ft, 4000 gals acid, pot 557 bbls oil. Newton Dev. Co.'s Tenny 1, nw nw se 19-18s-25w, spd & sd.
RENO COUNTY—Rosespring et al's Swanson 1, ne ne nw 1-23s-5w, dr 2000 ft. Graham et al's Miller 1, ne ne se 36-25s-10w, rr. Dickey Oil Co.'s Shepherd 1-A, ne ne nw 22-26s-9w, co 4153 ft. Miller et al's Detter 1, ne se nw 28-22s-7w, dr 385 ft. Pryor & Lockhart et al's Kerr 1, cnw 23-23s-8w, rig.
RICE COUNTY—Gilmac Oil Co.'s Sargent 1, se se se 31-18s-6w, dr 2915 ft. Duwe & Schneider's Wright 1, ne ne ne 36-21s-7w, abd 3525 ft. Simpson & Noble et al's Pulliam 1, cs½ n½ ne 35-19s-8w, fsg 3252 ft. Skiles et al's Stout 1, se se se 6-21s-9w, 5-in liner 3373 ft. Beardmore et al's Fuller 1, sw sw se 23-18s-7w, sd 3340 ft. Simpson-Noble & Stanolind's Bowman 1, sw sw nw 22-19s-10w, rust 3286 ft. Shell's Maughlin 1, ne nw se 11-20s-8w, fsg 3294 ft. Shell et al's Hafferman 1, cn½ n½ se 6-19s-9w, td 3207 ft. Saco Oil et al's Haxton 1, nw nw ne 30-19s-8w, lcn.
ROOKS COUNTY—Murfin et al's Westhusin 1, ne ne se 12-6s-18w, sd 3335 ft. Skaer Oil Corp. and Reese's Dryden 1, ne ne ne 28-10s-17w, dr 3050 ft. Lester & Dean's Burtt 1, se se ne 29-10s-20w, sd 2714 ft. Shoemake's Stebbins 1, ne ne sw 26-7s-17w, dr 1325 ft. Helmerich & Payne's Bedard 1, cne 29-9s-19w, dr 3385 ft. L. C. D. Drlg Co. et al's Westhusin 1, cne se 11-9n-17w, dr 520 ft. Hartman & Blair et al's Hall 1, nw nw nw 25-10s-17w, dr 670 ft.
RUSH COUNTY—Pryor & Lockhart's Stegman 1, sw nw ne 11-16s-17w, dr 3405 ft. Boyle & Grossman's Wilson 1, ne ne ne 33-17s-19w, dr 3330 ft. National Ref. Co.'s Werth 1, nw ne ne 7-16s-18w, dr 3615 ft. Keith et al's Dartmouth Savings Bank 1, sw sw ne 3-17s-18w, dr 3525 ft.
RUSSELL COUNTY—Berry et al's Cook 1, ne ne se 19-11s-13w, ru 5-in csg 3635 ft. Eisenhour & Shaffer's Humes 1, sw sw sw 6-14s-12w, sd 3407 ft. Darby and Continental's Letsch 1, se ne nw 34-14s-13w, td 3265 ft, pb 2880 ft, pumped 419 bbls oil, comp. Wakefield et al's Krug 1, ne nw sw 7-15s-14w, set 6-in csg 2885 ft. Coralena Oil Co.'s Sellens 1, sw se sw 20-15s-13w, td 3063 ft, pot 598 bbls oil, comp. Hartman & Blair's Johnston 1, nw nw nw 11-13s-14w, dr 1600 ft. Lario O&G Co. et al's Steinert 1, nw nw sw 21-15s-15w, dr 1714 ft. Reynolds' Fredrickson 1, se sw se 6-13s-12w, td 3170 ft, pb 3040 ft, 2000 gals acid, no test. Hartman & Blair's McAllister 1, sw sw se 24-13s-15w, ru 6-in csg 3125 ft. Armer et al's Maier 1, ne nw ne 20-15s-14w, dr 545 ft. Central Pet. Corp.'s Benso "C" 1, se se sw 9-14s-15w, pb 3120 ft, pulled 5-in csg. Lee & Reser's Penix 1, sw sw se 13-14s-13w, ru.
SALINE COUNTY — Ryan Consolidated & Archer's Norton 1, ne ne ne 30-14s-2w, mim.
SEDGWICK COUNTY—Joe Aylward et al's Harrison 1, se se sw 23-25s-2e, dr 3085 ft. Lauck's Parke 1, se se ne 17-25s-2e, dr 3450 ft. Wakefield et al's Howard 1, se se ne 25-25s-2e, rig.
SUMNER COUNTY—Matthews & Derrington's Berry 1, nw nw se 14-25s-1e, dr 3155 ft. Wilson et al's Clark 1, csl nw 15-35s-1w, dr 4350 ft. Craft & Wilson's Nevitt 1, ne nw ne 36-32s-2e, dr 3406 ft. Pryor & Lockhart et al's Knowles 1, sw sw sw 30-30s-1e, dr 4010 ft. Texas Co.'s Reed 1, ne se se 11-31s-1w, dr 2675 ft.
TREGO COUNTY — Central Commercial's Wagg 1, nw nw se 17-13s-21w, sd 4237 ft. Hall et al's Deines 1, se se se 12-13s-24w, dr 1775 ft.
WOODSON COUNTY—Foster et al's Timm 1, se nw ne 36-25s-13e, dr 1520 ft. Sheedy's Abbott 1, ne ne se 16-25s-14e, abd 1555 ft. Sheedy et al's Fuhlhage 1, sw se sw 27-25s-14e, set 6-in csg 1431 ft. Lester et al's Weidie 1, ne ne se 17-25s-14e, abd 1565 ft.

NORTH LOUISIANA

BIENVILLE PARISH—J. W. Leonard et al's Courtney Hrs. 1, se se 5-17n-7w, mim. Rondeau et al's Locke 1, ne nw ne 9-15n-10w, elev 180 ft, rur. Walters et al's Davis 1, 3-16n-9w ;dk.
BOSSIER PARISH—Bowman-Tidwell's Nattin 1, 15-22n-14w, dr 1730 ft. Producers O. & G. Co.'s J. A. Skannal Est. 1, sw sw 22-17n-12w, dr 3640 ft lime & shale. Triangle Drlg. Co.'s H. L. Skannal 2, sw se 23-17n-12w, elev 216 ft, dr 3320 ft shale. United Gas Pub Serv. Co.'s Skannal D-1, 22-17n-12w, 9⅝-in csg 3828 ft, dr 4430 ft. Humphreys et al's Bulkley 2, se se 35-21n-13, rur.
CATAHOULA PARISH—Ray McDermott's La. Cent. Lbr. Co. 1, nw nw 15-10n-5e, dr 2340 ft.
CADDO PARISH—Pyramid O. & G. Co.'s Wheeler A-1, 16-18n-16w, elev 250 ft, arr deepen 5210 ft. J. B. Hutchinson Tr.'s Colquitt 1, 28-16n-13w, rur. Forbing-Persian Oil Co.'s Cupples 1, 24-16n-13w, rur. Prairie River Oil Co.'s Hutchinson 1, sw nw 15-15n-12w, rur. R. E. Dalton's Leon Noel 1, sw se se 4-21n-14w, mim.
CLAIBORNE PARISH—Sugar Creek Synd. et al's Darrett 2, 31-20n-5w, elev 324 ft, fsh 7655 ft. E. T. Oakes' Patton Est. 2, ne ne 1-20n-5w, elev 357 ft, base massive anhydrite 4238 ft, arr core 4259 ft.
CALDWELL PARISH—Zeigen et al's La. Cent. Lbr. Co. 6, ne ne 18-14n-3e, coring 1378 ft.
DE SOTO PARISH—W. F. Hyde's Ramsey 1, se nw 36-11n-11w, sd for water 960 ft. Jas. E. Carlson's Garland 1, nw nw 7-14n-14w, spd.
FRANKLIN PARISH—S. C. Jensen's Bailey 1, 12-11n-6e, sd 1435 ft.
GRANT PARISH—Tri-State Dev. Co.'s Ethridge 1, ne ne 19-7n-3e, dr 2471 ft, Cane River.
JACKSON PARISH—Zeigen et al's La. Cent. Lbr. Co. 5, ne nw 13-14n-2w, owdd, 1770 ft.
LINCOLN PARISH—Lide & Greer's S. Gardner 1, 10-17n-4w, ran electrical tester, then drill stem test showed 10 mil ft wet gas 6483-98 ft, coring 6550 ft, shale.
MOREHOUSE PARISH—Henry E. Rondeau et al's Clark 1, se ne 10-20n-7e, elev 90 ft, rur.
NATCHITOCHES PARISH—B. C. Morrison's Moffet 1, sec 19-10n-10w, woc 12½-in csg 220 ft (corrected depth).
RAPIDES PARISH—Beatty, Bowles et al's Haas 1, ne ne 18-1s-2e, mim.
RED RIVER PARISH—H. D. Conley et al's Long-Bell 1, ne ne 19-13n-9w, sd 3200 ft. T. B. Shaw et al's Teekel 1, 34-13n-10w, 7-in csg 2500 ft, tested sg, sw 2830 ft, setting tubing for another test.
SABINE PARISH—Keen et al's Long-Bell 1, 5-8n-13w, rur. A. H. Tarver's Baker 2, 36-8n-12w, junked hole at 5225 ft, skid over for new hole. Whitehurst et al's Whitney Corp. 1, nw ne 8-9n-13w, 9⅝-in csg 3234 ft.
TENSAS PARISH—H. M. Jones' Chicago Mill & Lbr. Co. 1, nw sw nw 29-12n-10e, base Jackson 776 ft, 8⅝-in csg 776 ft, td 779 ft. Clara Nook Plant 1, nw sw 32-12n-10e, spd.
WEBSTER PARISH—J. P. Evans' T. H. Johnson 1, sw nw sw 36-18n-9w, mim. Ohio Oil Co.'s R. L. Holloway 6, ne sw 23-21n-10w, elev 210 ft, arr set 7-in csg after coring 25 ft oil sand in Travis Peak, td 8369 ft. W. C. Feazel et al's Hooper 1, 8-17n-9w, sd 3016 ft. Red Hawk Oil Co.'s Baker 1, se nw 9-22n-9w, 12½-in csg 200 ft, sd cur titles. Skidmore et al's Barnette 1, nw sw 29-17n-9w, woc surf csg.

SOUTH LOUISIANA

ACADIA PARISH—Magnolia's Homeseekers 1, Esterwood prospect, sec 54-10s-1w, dr shale 9395 ft.
ALLEN PARISH—Humble's Bel 2, Reeves prospect, sec 28-6s-2w, woc 3004 ft.
CALCASIEU PARISH—Fred Oil Co.'s Faist 1, sec 26-8s-10w, sd 4122 ft.
CAMERON PARISH—Magnolia's Hebert 1, Big Lake area, sec 13-12s-9w, woc 8616 ft.
EAST FELICIANA PARISH—East Feliciana Oil Corp.'s West & Dudding 1, sec 57-1s-1w, dr sand and shale 160 ft.
IBERIA PARISH — Texas Co.'s State 1, Fausse Point, sec 35-11s-8e, dr shale 2803 ft.
JEFFERSON DAVIS PARISH—Shell's Lacassine 1, Hayes prospect, sec 20-11s-5w, sd 9844 ft. Stanolind's Calcasieu National Bank 1, South Jennings prospect, sec 15-10s-3w, dr shale 4333 ft. Strake's Miller Estate 1, Woodlawn prospect, sec 7-9s-5w, dr shale 7350 ft.
ST. BERNARD PARISH—John Cartwright's Nunes 1, e of New Orleans, sec 10-13s-12e, dr shale 2698 ft.
ST. JAMES PARISH—Shell's Colonial Sugar 1, Convent prospect, sec 5-12s-5, dr shale in sdtr hole 2830 ft.
ST. MARTIN PARISH—Texas Co.'s Mogouloi 2, sec 14-10s-9e, dr shale 6370 ft; same operator's St. Martin Land Co. 8, sec 9-8s-7e, dr shale 7998 ft.
TERREBONNE PARISH—Humble's Continental 1, sec 30-17s-14e, woc 3004 ft.
VERMILION PARISH—Continental's Hebert 1, Abbeville prospect, sec 20-12s-3e, reaming 9957 ft.

MICHIGAN

ALPENA COUNTY—C. W. Teater's Nevins 1, 32n-6e-18, csd 10-in 1200 ft, dr 1360 ft.
BAY COUNTY—H. L. McEvoy's Glander 1, 14n-3e-15, dr 860 ft. A. H. Webber's De Long 1, 16n-3e-35, sd 2650 ft.
CLINTON COUNTY — Petroleum Exploration Co.'s Cable 1, 5n-2w-12, reaming 2890 ft.
CLARE COUNTY—Fortney Oil Co.'s Neville 1, 17n-3w-19, dr 3200 ft.
GRATIOT COUNTY — Oil Finders Inc.'s Stahl 1, 11n-2w-28, sp. Associated Petroleum Co.'s Yutzey 1, 10n-4w-26, dr 700 ft.
IONIA COUNTY—Terry Dale, Inc.'s Tew 1, 6n-7w-12, sd 2900 ft.
KENT COUNTY—James S. Barton's Smith 1, 10n-10w,-29, dr 2910 ft. Michigan Oil Exploration Co.'s Croff 1, 7n-9w-35, dr 3450 ft.
LAKE COUNTY—C. W. Teater's McCabe 1, 20n-12w-26, dr 3100 ft.
MASON COUNTY — Sylvania Oil Co.'s

Campbell 1, 17n-15w-10, dr 1500 ft. Northern Development's Burke 1, 17n-15w-26, dr 2450 ft.

MONTCALM COUNTY—Terry Dale, Inc.'s Higgins 1, 9n-8w-13, dr 700 ft. Robert Gallagher's Bentley 1, 11n-7w-33, dr 1000 ft. W. E. Voss, Tr.'s Bristol 1, 10n-8w-23, dr 3100 ft.

SAGINAW COUNTY—B. J. Skinner's Sheldon 1, 10n-3e-12, dr 2921 ft.

TUSCOLA COUNTY — V. R. Kirkham's Boyce 1, 14n-7e-24, Dundee 2604 ft, dr 2868 ft, 5 bbls est daily oil.

MISSISSIPPI

CLAIBORNE COUNTY—Claiborne Oil & Gas Drlg. Co.'s Crawford 1, 6-13n-4e, elev 115 ft, dr 930 ft. Claiborne County Dev. Co.'s Ruth Hayden 1, 56-11n-2e, lcn.

HINDS COUNTY—Chichester et al's Gervin 1, 11-5n-4w, lcn.

JONES COUNTY—Snow-Black Pet. Co.'s Fox 2, 31-7n-12w, dr 3620 ft.

MONROE COUNTY—P. J. McAlpine et al's Crook 1, 4-13n-18e, owdd, td 2537 ft.

SMITH COUNTY—Howie & Lewis' Broadfoot 1, 15-4n-7e, co to deepen td 1500 ft.

WILKINSON COUNTY—T. S. Stoneman et al's L. T. Ventress 1, 38-2n-3w, lcn.

MONTANA

FERGUS COUNTY—H. C. Rowland's Government 3, cel ne sw 18-17n-24e, dr 415 ft.

GLACIER COUNTY—L. P. Jackson and Stanley Gray Dunbar 1, nw se nw 22-34n-7w, dr 3559 ft. Water developed at 3485 ft, and 8⅝-in csg was run to shut off water. R. C. Tarrant's Sherbor 1, 1908 ft north of the swc 3-23n-6w, lcn.

JUDITH BASIN COUNTY — Fletcher P. Hunt's Hobson 3, nw se ne 30-14n-15e, dr 1755 ft.

PONDERA COUNTY—Texas Co. 1 Unit 1, cnw se 32-31n-5w, so water instead oil at 2855-2902 ft. Klinch Petroleum Ltd.'s Hollan 1, nw nw nw 12-28n-6w, resuming dr 2000 ft. Gordon Campbell's Hughes 1, nw ne nw 12-30n-4w, dr 1907 ft.

TETON COUNTY—R. C. Tarrant's Wellenstein 1, nw nw sw 9-27n-5w, dr 1755 ft.

TOOLE COUNTY—Jack Reynolds 1, sec se 1-11-4, lcn.

NEW MEXICO

LEA COUNTY—Argo Royalty Co.'s Lanehart 1, sw se ne 21-25s-37e, lcn. Barney Cockburn & Rowan-Nichols Oil Co.'s H. G. Mattern 1, c sw se 7-22s-37e, elev 3426 ft, tested 500,000 ft gas at 3587 ft, to dd. C. & G. Oil Co.-The Texas Co.'s Ellen Weir 1, c ne ne 14-20s-37e, elev 3564 ft, top anhydrite 1348 ft, passed up pay at 3893 ft, td 3955 ft, used 3000 gals acid tested 4,500,000 ft gas with spray oil, but no water, to dd. Culberson, Erwin & Stovall's J. S. Eaves 1, c sw nw 18-21s-33e, dr 715 ft. Gulf Oil Corp.'s S. J. Carr 1, c nw sw 3-24s-37e, elev 3267 ft, dr 2250 ft; S. T. Burk 1, c ne ne 28-19s-37e, elev 3602 ft, dry and abd 4020 ft; L. M. Buffington 1, c nw sw 13-25s-37e, elev 3091 ft, dr 2730 ft; E. A. King 1, c sw nw 28-21s-37e, elev 3469 ft, used 3000 gals acid, td 3804 ft, flowed 56 bbls oil 12 hrs via tubing, sd to run packer; F. C. King 1, c sw nw 5-23s-37e, elev 3371 ft, dr 2820 ft; W. T. McCormack 1, c ne ne 32-21s-37e, elev 3464 ft, td 3802 ft, used acid twice, flowed 114 bbls oil and 603,000 ft gas daily, sd for shot; A. B. Reeves 1, c nw sw 29-20s-37e, elev 3529 ft, pb fr 3859 ft to 3846 ft, tested 60 bbls daily on gas lift after shot and acid; J. A. Stuart 1, c sw ne 10-25s-37e, elev 3120 ft, so&g, coring 3375 ft. Humble's W. B. Farrell 1, c sw se 22-22s-37e, elev 3341 ft, so&g 3607-10 ft, dr 3625 ft; B. E. Boyd 1, c nw se 35-22s-37e, mim; J. T. Lanehart 1, c ne sw 21-25s-37e, elev 3068 ft, flows 6 bbls per hr gas lift, td 3565 ft, sd for shot. Jal Nat'l Gas Co.'s C. T. Bates-Humble 1, c nw sw 20-25s-37e, cellar. Landreth Prod. Corp.'s E. H. Grizzell 1, c se sw 5-22s-37e, elev 3437 ft, show gas, dr 3505 ft. Harry W. Leonard et al's B. T. Lanehart 2, c se nw 21-25s-37e, elev 3067 ft, dr 600 ft. Magnolia's E. A. Carson 1, c nw sw 28-21s-37e, elev 3463 ft, top salt 1348 ft, top lime 2700 ft, making gas, dr 3500 ft; Will Cary 1, c ne se 21-22s-37e, elev 3361 ft, top anhydrite 1108 ft, dr 3480 ft; Scharbauer-Eidson 1, c nw ne 29-16s-35e, lcn. Ohio Oil Co.'s W. H. Turner 1, c ne se 29-21s-37e, elev 3477 ft, broken pay 3710-3800 ft, used acid twice, totalling 8000 gals, complete flows 70 bbls oil daily on flow valves. N. G. Penrose & Rowan-Nichols Oil Co.'s Will Cary-Humble 2, c ne sw 22-22s-37e, elev 3345 ft, td 3570 ft, swabs 92 bbls oil 24 hrs after shot; Cary 3, c se nw 22-22s-37e, elev 3364 ft, sd 1150 ft; Cary 4, c sw nw 22-22s-37e, sd 1146 ft. Plains Production Co.'s R. L. Mosely-Repollo 1, c nw se 34-24s-37e, elev 3168 ft, sul w at 3550-3551 ft, pb to 3530 ft, flows 15 bbls daily via tubing. Repollo Oil Co.'s J. T. Lanehart 1, se nw nw 28-25s-37e, elev 3028 ft, shot 150 qts 3200-3302 ft, flowed 108 bbls 10 hrs, later flowed 30 bbls 10 hrs on bottom hole choke; Frances Stuart 1, se nw se 10-25s-37e, elev 3114 ft, dr 2780 ft; J. M. Brownlee 1, ne ne sw 25-21s-36e, mim. Samedan Oil Corp.'s Marshall 1, c sw nw 12-21s-36e, elev 3540 ft, dr 3835 ft; C. U. Parks 1, sw sw sw 14-22s-37e, elev 3339 ft, sul w 3780-90 ft, pb fr 3800 to 3610 ft, shot 245 qts at 3502-3610 ft, shot split cas, sd to run 5 3/16-in cas. Skelly Oil Co.'s J. V. Baker 2, c nw nw 27-22s-37e, elev 3341 ft, dr 2250 ft; Ellen Sims 1, c nw se 3-23s-37e, elev 3300 ft, dr 3050 ft; F. S. Stuart 1, c ne nw 15-25s-37e, elev 3107 ft, dr 1760 ft. Sun Oil Co.'s B. T. Lanehart 1, c se se 20-25s-37e, elev 3042 ft, top anhydrite 971 ft, top salt 1145 ft, td 2757 ft, killed big gas flow, shot tubing off at 2525 ft. The Texas Co.'s E. L. Alexander 1, c lot 3, or c nw sw 7-21s-37e, elev 3504 ft, base salt 2530 ft, td 3835 ft, tests 31 bbls fluid daily, 34 percent bs&w; E. D. Fanning 1, c se ne 4-24s-37e, elev 3293 ft, dr 1310 ft; L. L. Clardy 1, c se se 13-16s-36e, lcn. Tide Water's Anna Walden 1, c se ne 21-22s-37e, elev 3352 ft, dr 3415 ft.

OKLAHOMA

ATOKA COUNTY—Riverland O&G Co.'s Jones 1, sw sw ne 4-3n-9e, abd 2724 ft. Prairie Investment Co.'s Cobb 1, sw ne nw 19-3s-11e, dr 169 ft. Phelps & Coats et al's Fidelity 1, se sw nw 23-1s-12e, dr 600 ft.

BECKHAM COUNTY — Jo-Gail Drlg Co.'s Gilliland 1, cne ne 3-8s-26w, rusm.

CARTER COUNTY — Carter et al's Leon Voorhees 1, cse sw 34-5s-2w, dr 6686 ft. Hammond's Lile 1, sw se se 8-5s-1e, sd 475 ft.

COAL COUNTY—Shell's Hill 3, se se nw 30-3n-10e, pb 4330 ft, bailing. Sinclair Prairie's Culver 1, ne ne sw 16-1n-8e, td 486 ft, wocs. Mitchell's Quiett 1, ne nw sw 35-1n-8e, dr 1051 ft. Carter and Magnolia's James 1, sw nw sw 35-1s-8e, td 280 ft, wocs. Continental's King 1, ne sw ne 26-1n-8e, dr 336 ft.

GARFIELD COUNTY—Sherry et al's Hoken 1, nw nw sw 32-20n-4w, td 6456 ft. Stanolind-Amerada's Brunken 1, sw sw ne 32-23n-4w, rur to dd.

GARVIN COUNTY—Carter et al's Wood 1, nw sw se 5-4n-3e, td 3018 ft, wocs. McElreath & Suggett's Lasater 1, se se sw 2-2n-1w, dr 3433 ft.

GRADY COUNTY—Stevens' Mays 1, ne ne ne 1-3n-8w, rig. Art Holt et al's Ramsey 1, ne se ne 31-5n-8w, lcn.

HARMON COUNTY—Lioalko Trust's Crasnoe 1, se se sw 14-3n-25w, sd 2870 ft.

HUGHES COUNTY—Phillips' Eberle 1, ne ne sw 12-5n-9e, td 5540 ft, dr plug to recemt. Sivils et al's Montgomery 1, nw sw nw 7-9n-9e, td 1693 ft, 1200 ft oih 40 hrs. Blackwell O&G Co.'s Long 1, se ne nw 29-9n-9e, resetting 12-in csg 1695 ft. Sinclair Prairie et al's Wilkey 1, sw sw sw 23-9n-8e, sd 3025 ft. Blackwell et al's Homahte 1, sw ne ne 1-9n-10e, lcn.

JACKSON COUNTY—John Dickson et al's Wright 1, ne nw se 19-1n-19w, abd 3200 ft. Burnham's Oliver 1, nw nw se 26-1n-20w, sd 1980 ft. Ben Russell's Daniel 1, nw ne se 13-3n-20w, rng 10-in csg 578 ft. Jackman's Fee 1, sw sw sw 27-1s-24w, fsg 2685 ft. Delaney's Mack 1, cne sw 32-1n-20w, rur.

JEFFERSON COUNTY — Red River Oil Co.'s Trout 1, se ne ne 6-8s-7w, sd 2202 ft. Pearson et al's Douthitt 1, ne ne ne 24-6s-9w, sd 2202 ft.

JOHNSTON COUNTY — Shell's Illinois Bankers Life 1, nw se ne 10-2s-7e, spd.

KAY COUNTY—Allen and Texas Co.'s Fulton 1, se se se 18-27n-4e, dr 1520 ft.

KIOWA COUNTY—Beeler & Klein's Parrish 1, se se nw 3-6n-15w, dr 230 ft.

LE FLORE COUNTY—McGraw et al's Tidwell 1, cnw se 17-3n-22w, sd 1750 ft.

LINCOLN COUNTY—Amerada et al's Zimmerman 1, sw sw ne 10-12n-5e, cored 4340-4350 ft, so&g. Mid-Continent's Hillman 1, sw se ne 29-13n-6e, dr 3050 ft. Skelly's Sporn 1, nw ne sw 21-17n-3e, br.

LOVE COUNTY—Amerada-Stanolind's Westheimer & Daube 1, sw se sw 27-6s-2e, td 7363 ft, pb 2970 ft, testing. Sinclair Prairie's Stockton 1, se se sw 26-6s-2w, dr 8700 ft.

MARSHALL COUNTY — Helmerich & Payne's Taliaferro 1, nw se sw 26-5s-5e, td 2315 ft, pb 1350 ft, wocs.

McCLAIN COUNTY — Arab Pet. Corp.'s Autry 1, nw nw nw 16-7n-3w, sd 8300 ft.

McINTOSH COUNTY—Dieckman's McIntosh 1, se se se 4-12n-17e, sd 865 ft.

OKFUSKEE COUNTY—Amerada-Stanolind's Wells 1, sw sw nw 7-11n-7e, abd 4505 ft.

OKLAHOMA COUNTY — O'Shaughnesey Inc.'s Berlowitz 1, se sw ne 9-12n-3w, sd 4405 ft.

OSAGE COUNTY—Midco et al's 1, nw nw se 11-23n-6e, abd 2893 ft. Gray & Tolson's 1, sw sw ne 33-25n-7e, dr 1800 ft. Stoner & Miller's 1, nw ne sw 18-22n-8e, dr 200 ft.

PAYNE COUNTY — Amerada-Stanolind's Pratt 1, se se se 29-19n-5e, td 3675 ft, testing. Denver Prod. et al's Pratt 1, nw nw nw 20-18n-3e, dr 4105 ft.

PITTSBURG COUNTY — Oklahoma Cist Oil Co.'s Beeler 1, ne ne sw 7-7n-14e, rur.

PONTOTOC COUNTY — Sandback et al's Sands 1, ne ne ne 20-3n-5e, dr 1725 ft.

SEMINOLE COUNTY—Tom Phillips and Kimraw Drlg. Co.'s Chemperney 1, se se nw 7-6n-7e, dr 2485 ft. Twin State's Hamm 1, se se sw 24-10n-7e, dr 2200 ft. Crosbie's Casey 1, cn½ n½ ne 30-6n-8e, dr 980 ft. Arkansas Royalty Co.'s Kiker 1, se se ne 9-10n-7e, dr 2404 ft.

STEPHENS COUNTY—Endicott et al's McFatridge 1, nw nw sw 11-3s-9w, fsg 1450 ft.

TILLMAN COUNTY—Gulf's Wearmouth 1, se nw se 31-1s-16w, dr 4785 ft. Johnson, Young & Mitchell's Donahoe 1, se nw nw 7-4s-17w, dr 2505 ft. Gulf et al's McWilliams 1, nw sw sw 15-3s-17w, td 3299 ft. Bernheim's Tate 1, ne ne nw 16-1s-19w, td 265 ft, wocs. Shirley Clum et al's Moriele 1, nw nw se 16-4s-14w, report last week in error, sd 1331 ft. Smith's Hammill 1-A, ne nw nw 6-5s-15w, dr 1700 ft.

EAST TEXAS

ANDERSON COUNTY—Gulf Oil Corp.'s M. J. Ross 1 (54.7-ac), Robt. Erwin sur, Camp Hill area, elev 487 ft, top Georgetown lime 5452 ft, dr lime 6220 ft. Tide Water and Seaboard Oil Corp.'s J. B. Edens 15 (988.6-ac), Samuel Snider sur, Cayuga field, Trinity sand test, elev 313 ft, Pecan chalk 2245-2410 ft, Austin chalk 3161-3498 ft, dr 4390 ft.

BOWIE COUNTY—Westmount Oil Co. et al's R. H. Phillips 1 (115-ac), J. N. Hancock sur, 10 mi n Oak Grove, elev 340 ft, Georgetown lime 1533-1924 ft, top Paluxy sand 1924 ft, first stringer anhydrite 2735 ft to 2890 ft, sdo 4003 ft. Fay T. Chew and Brassett's Byron Barkinson 1 (90-ac), J. W. Parkman sur, 2½ mi n of Leary, cem cas 64 ft. Ferguson and Hill's A. Y. Breckenridge 1, Nancy Dycas sur, 4 mi w Texarkana, cem cas 60 ft.

CHEROKEE COUNTY—T. J. Wood et al's J. E. Huggins 1 (80-ac), Levi Jordan sur, 2 mi sw Rusk pool, elev 457 ft, Pecan chalk 4039-4480 ft, top Austin 4935 ft, flowed oil, gas adn salt w on dst at 5141-5186 ft, to plug back and test.

COLLIN COUNTY—Port Bolivar Co.'s O. G. Durning-Clarkston 1-A (140-ac), Wm. Creager sur, Pat. 1193, elev 722 ft, show o&g 3936-96 ft, sd for water, td 4070 ft; A. Shirley 1 (50-ac), Gwyn Morrison sur, 1¼ mi e Anna, mim.

DELTA COUNTY—Delta Oil Co., Inc.'s J. H. McKinney 1 (231-ac), L. Hampton sur, lcn.

FALLS COUNTY—J. Edward Mills et al's Sam Grucholski 1 (40-ac), Dennis Herold League, 5 mi sw Kosse, elev 521 (est) ft, top Pecan chalk 2114 ft, Austin chalk 2765-2930 ft, dr 2990 ft.

FANNIN COUNTY—E. V. Abernathy and A. F. Carter's G. D. Galloway 1 (320-ac), W. M. Rice sur, top Georgetown lime 1697 ft, sd 2225 ft. L. P. Kean et al's R. L. and W. M. Kelley 1 (160-ac), Wm. Kelley sur, top Georgetown lime 2610 ft, sd 2880 ft.

FRANKLIN COUNTY—Humble O&R Co.'s King-Hughes 2 (1053-ac), O. James sur, spd. Earl Bateman Drl. Co.-Rovenger's E. L. Phillips 1 (38½-ac), Wm. Bridwell sur, elev 358 ft, Pecan chalk 1342-1580 ft, top Georgetown lime 3510 ft, estimated 35 ft of oil saturated formation in upper Paluxy zone, water sand 4357-4361 ft, showed mud and brackish and fresh w on dst at 4282-4361 ft, to set cas, pb and test. Lucey Pet. Co. et al's W. N. Crawford 1 (25-ac), O. James sur, dr 2900 ft. J. B. Bond & J. Z. Werby's T. J. Sanders 1 (42.3-ac), W. F. Dyer sur, elev 359 ft, Pecan chalk 1262-1300 ft, top Woodbine 2888 ft, top Red Beds 3005 ft, top Georgetown lime 3424 ft, dr 4000 ft. Geo DeGrazier et al's F. M. Batts 1 (30-ac), F. M. Batts sur, elev 356 ft, dk. L. S. Flannery, Inc., and Stroube's J. L. Hedrick 1 (66.08-ac), ME&P Ry. sur, dk. Stroube & Stroube's B. Norman 1, MEP&P Ry. sur No. 344, mim.

GRAYSON COUNTY—Olson Drl. Co.-James H. Gardner et al's SW. Life 1 (160-ac), J. C. Jamison sur, A-865, 3 mi n Pottsboro, elev 767 ft, top Sylvan shale 4870 ft, Viola lime 4901-5096 ft, td 5890 ft, pb to 5440 ft, fsh drill pipe. Port Bolivar Co.'s Creed Taylor 1 (160-ac), J. Fitzhugh sur, 3 mi se Gunter, sd 3931 ft.

FREESTONE COUNTY — Tom Sharp & Paul Gunther's E. E. Lamb 1, Jas. Sparks sur, 3 mi se Fairfield, top Austin chalk 2550 ft, dr 3100 ft.

HOPKINS COUNTY—Dilworth S. Hager, W. P. Luse & Leon Russ' J. E. Worsham 1 (150-ac), A. O. Wetmore sur, elev 440 ft, Pecan chalk 1187-1208 ft, top Woodbine 3040 ft, top Georgetown lime 3600 ft (est), dr 3800 ft, hard lime.

HUNT COUNTY—Texola Land Corp.'s Gen'l American Life Ins. Co. 1 (203.8-ac), blk 104, J. Yeary sur, lcn.

HOUSTON COUNTY—Branch et al's P. S. Griffiths 1, Frank Johnson sur, 3 mi sw Crockett, dk. Ellison, McBride, Haberle & Thornton's J. E. Bean 1 (40-ac), Eli Steadman sur, 1½ mi nw Grapeland, elev 482 ft, Pecan chalk 4660-4894 ft, top Austin chalk 5610 ft, dr broken chalk 5935 ft.

KAUFMAN COUNTY—Colton and R. P. Lester's Barrow Bros. 1 (40-ac), J. D. Taylor

sur, 8 mi ne Elmo, Trinity sand test, elev 528 ft, Austin chalk 2235-2681 ft, td 3720 ft, pb to straighten crooked hole. J. M. Scott and J. B. Woodside's E. Robinson 1 (80-ac), A. Chirnio sur, 2 mi w Scurry, Austin chalk 1200-1747 ft, top Woodbine series 2158 ft, top red beds 2230 ft, sd in sw, td 2235 ft.

LAMAR COUNTY — Barrett, Saloman & Brooks' Haynes-McCuistion 1 (25-ac), A. W. Wright sur, 4 mi ne Garrett Bluff, elev 443 ft, Georgetown lime 275-738 ft, top Paluxy series 739 ft, td 1871 ft, dry and abd. J. A. Forester et al's J. S. Woodward 1 (18¾-ac), J. W. Woodward sur, 1½ mi e by s of Minter, elev 402 ft, top Georgetown lime 2256 ft, Paluxy sand 3060-3144 ft, top anhydrite 3735 ft, base hard anhydrite 4073 ft, broken to 4105 ft, sd 4516 ft, will deepen.

LIMESTONE COUNTY—Dan H. Daugherty et al's Sallie Welch 1 (94-ac), Pedro Varella sur, 4 mi w Groesbeck, Austin chalk 2350-2650 ft, top Woodbine series 2890 ft, tested dry, sdo 3158 ft. C. F. Lytle et al's J. L. Thompson 1-T (141-ac), w side Mexia field, elev 459 ft, cem 7-in cas 6002 ft, td 6065 ft, tested salt water flow with gas, pb to 6059 ft, testing.

NAVARRO COUNTY—W. A. Reiter et al's J. V. Bounds 1 (180-ac), H. Shelton sur, lcn.

RED RIVER COUNTY—J. S. Abercrombie Co.-Harrison Oil Co.'s Southern Pine Lumber Co. 1-A (392.57-ac), D. D. Bruton sur, 12 mi ne Clarksville, elev 407 ft, Georgetown lime 665-1020 ft, top Paluxy 1057 ft, anhydrite 1740-1800 ft, top sand 2104 ft, tested water at 2110 ft, and 2118 ft, fsh drill pipe in basal Trinity, td 2292 ft, may abd. R. H. Manning and Texfornia Co.'s Hocker-Hughes 1 (80-ac), MEP&P Ry. sur, No. 642, 6 mi sw Lydia, elev 307 ft, Nacatoch sand 424-460 ft, dr 600 ft.

RUSK COUNTY — Pure Oil Co.'s W. H. Faulkner 1 (60-ac), Wm. Elliott sur, 5 mi e Mount Enterprise, Trinity sand, or 8500-ft test, elev 563 ft, Pecan chalk 2650-2890 ft, show gas when cut through fault at 2599-2609 ft, Austin chalk 3286-3450 ft, top Georgetown lime 3446 ft, stringer anhydrite 5320-5325 ft, top massive anhydrite 5945 ft, tested sw at 6177-6298 ft, dr shaley-lime 7228 ft.

TITUS COUNTY—Jule Alford, Tr., et al's J. E. Fry 2 (47.48-ac), I. P. Stern sur, about 1200 ft ne Fry 1, jkd test, elev 333 ft, Pecan chalk 1390-1452 ft, Austin chalk 3050-82 ft, dr Georgetown lime 3960 ft. L. L. Deaton et al's W. H. Gray 1, lot 7, blk 17, Talco townsite, dk. Delta Drl. Co.'s Cato 1, c blk 44, Talco townsite, dr 750 ft. Hollandsworth Drl. Co.'s A. O. Brown 1 (52/100-ac), c lot 1, blk 41, Talco townsite, elev 377 ft, top Pecan chalk 1666 ft, top lime 3392 ft, Paluxy pay 4170-4347 ft, sd to run cas. Humble O&R Co.-Ned B. Morris, Jr.'s W. H. Hughes 1 (6½-ac), Delgado sur, elev 371 ft, Pecan chalk 1630-1787 ft, dr lime 3600 ft. R. C. Horne et al's J. F. and L. Barton 1 (3-ac), M. V. Delgado sur, elev 361 ft, Pecan chalk 1550-1755 ft, dr 3330 ft. Jones & Shelburne's Hazelwood 1 (10-ac), I. P. Stern sur, elev 342 ft, Pecan chalk 1320-1520 ft, top red beds 3238 ft, top Georgetown lime 3511 ft, Paluxy pay zone 4285-4351 ft, cem 5½-in cas 4273 ft; L. Stephenson 7 (71-ac), O. James sur, dk. W. P. Luse et al's W. T. Sullivan 1 (4-ac), M. V. Delgado sur, elev 371 ft, Pecan chalk 1635-1828 ft, top Georgetown lime 3440 ft, fsh 27 jts drill pipe, td 3748 ft. Magnolia Pet. Co.-Humble's Lucy Blackburn 1 (80.51-ac), Ben Jones sur, rur. B. C. Morrison, A. M. Peairs et al's Lewis Sanders 1, c lot 1, blk 30, Talco townsite, elev 371 ft, Pecan chalk 1670-1860 ft, Paluxy pay zone 4188-4202 ft, cem 7-in cas to dd and complete. Nivla Oil Corp-Sutton & Hawkins' J. N. Kelley 1, nec 15.76-ac lse, J. Salmon sur, A-506, elev 348 ft, Pecan chalk 1533-1730 ft, top red beds 3181 ft, top Georgetown lime 3640 ft, Paluxy pay 4228-4308 ft, unloaded and swabbed very little oil; W. H. Gray 1 (2-ac), blk 10, Talco townsite, elev 362 ft, Pecan chalk 1635-1786 ft, dr 3200 ft. Porter Bros. et al's W. T. Sullivan 1 (4-ac), I. P. Stern sur, dk. Red Iron Drl. Co.-Dean Bros.' A. Cornelius 1 (3-ac), M. V. Delgado sur, elev 370 ft, Pecan chalk 1641-1875 ft, dr 3560 ft. G. Stratton et al's J. F. Barton 1 (1-ac), M. V. Delgado sur, s of Talco, Pecan chalk 1563-1746 ft, top red beds 3235 ft, top Georgetown lime 3384 ft, dr 3450 ft. Stroube & Stroube's S. E. Stratton 1 (50-ac), MEP&P Ry. sur, 6 mi e Talco, dk. Tide Water Oil Co.'s C. M. Carr 1 (72-ac), M. V. Delgado sur, elev 358 ft, top Pecan chalk 1656-1773 ft, top Georgetown lime 3492 ft, top Paluxy 4164 ft, td 4340 ft, complete flowed 40 bbls per hr via open 2½-in tubing.

HARRISON COUNTY—W. F. Bridwell et al's Clapp 1, F. C. Baker sur, sd 2406 ft.

PANOLA COUNTY—Logansport P.L. Co.'s Rushing 1, Manning Smith sur, base Annona chalk 1834 ft, dr 2604 ft.

SABINE COUNTY—House et al's Bell 1, D. McDonald sur, cored sand 2032 ft.

SHELBY COUNTY — Farley & Sommers' Green 1, Jas. English sur, elev 209 ft, top chalk 2950 ft, sd 3100 ft chalk. Potter & Rubeling's O. H. Polley 1, Wm. Whisner sur, arr core 3400 ft. H. A. Stebbinger et al's Pickering Lbr. Co. 1, C. F. Henry sur, dr 4410 ft, lime.

WEST TEXAS

ANDREWS COUNTY — Grisham-Hunter Corp.'s Ratliff-Bedford 1, c nw¼ sec 24, blk 73, PSL sur, mim. Humble O.&R. Co.'s J. S. Means 8, c se ne sec 19, blk A-35, PSL sur, elev 3141 ft, top anhydrite 1870 ft, top salt 1905 ft, dr 2900 ft.

BORDEN COUNTY—John I. Moore et al's Clayton-Johnston 1, se¼ sec 20, blk 32, T&P Ry sur, T-4-N, lcn.

BREWSTER COUNTY—Floyd C. Dodson et al's Texas American Synd. 1-A, c ne ne sec 66, blk 10, GH&SA Ry sur, deep test, elev 4228 ft, fsh csg 2220 ft.

COCHRAN COUNTY—Honolulu Oil Corp-Cascade Pet. Co.'s T. B. & R. F. Duggan 1, c labor 13, league 55, Oldham County School Land sur, sd 232 ft.

CONCHO COUNTY—John W. Westbrook Co.'s C. C. Ledbetter 1, sec 2, blk 65, H&TC Ry sur, A-1673, elev 2000 ft, dr 2605 ft.

CRANE COUNTY—Big Basin Pet. Co.'s Jax Cowden 1, NEc nw ne sec 77, blk "X", elev 2456 ft, top salt 548 ft, sd 2602 ft. American Liberty Oil Co. et al's Tubb-Humble 2, c ne sw sec 11, blk B-27, mim. Clark-Cooper & Smith's A. P. Jordan 1, NEc 160-ac lse, sec 12, blk B-22, PSL sur, machine. Steve Currie et al's TP Land Trust 1, SWc se¼ sec 33, blk 44, T&P Ry sur, T-3-S, dr 1300 ft. A. R. Eppenauer and A. H. Livingston's Livingston 1, sec 13, blk 6, H&TC Ry sur, Ordovician test, lcn. Gulf Oil Corp.'s W. N. Waddell et al 2, c ne sw sec 18, blk B-21, PSL sur, Ordovician lime test, elev 2620 ft, top sand 1620 ft, reaming 3940 ft; M. B. McKnight 2, c ne¼ sec 9, blk B-21, PSL sur, rur. Gulf & T. B. Cranfill's J. B. Tubb 2, NEc sec 12, blk B-27, PSL sur, top anhydrite 455 ft, top salt 500 ft, dr 3830 ft. Humble's J. B. Tubb 3, SWc sec 10, blk B-27, PSL sur, dr 600 ft. Loffland Bros. et al's J. B. Tubb-Gulf 1, c nw¼ sec 9, blk B-27, PSL sur, elev 2540 ft, top anhydrite 428 ft, salt series 495-1285 ft, top brown lime 2478 ft, sd 4510 ft; Tubb-Gulf 2, SEc n½ sec 9, dr 450 ft. J. E. Lucas et al's R. S. Pershing 1, sec 1, blk 31, H&TC Ry sur, machine. John I. Moore et al's T. C. Barnsley 1, c sw sec 43, blk 32, PSL sur, Ordovician lime test, elev 2472 ft, top anhydrite 500 ft, top salt 680 ft, top brown lime 2505 ft, top sul w in big lime 4555 ft, sd for repairs 4875 ft. Riden and Pershing's N. S. Thaxton 1, e¼ sec 2, W. T. Wilkenson sur, sp and sd. L. R. Stroud et al's J. Mosley 1, sec 4, blk 31, H&TC Ry sur, elev 2373 ft, top anhydrite 525 ft, top salt 820 ft, sd 1902 ft. Tide Water's W. P. Edwards 1, SWc nw¼ sec 2, blk B-23, PSL sur, elev 2775 ft, dr 3200 ft.

CROCKETT COUNTY—John I. Moore et al's A. C. Hoover 1, SEc sec 4, blk "FF", B&B sur, sd 1255 ft.

JEFF DAVIS COUNTY—C. M. "Dad" Joiner et al's Jones-Coffield 1, ne¼ sec 8, blk 3, H&TC Ry sur, dr 4185 ft.

DAWSON COUNTY—Harry Adams, Fred Turner & Ray Albaugh's John Robinson 1, c nw¼ sec 46, blk M, EL&RR sur, elev 3085 ft, top salt 1970 ft, top lime 4580 ft, dr 5050 ft.

ECTOR COUNTY—Broderick & Calvert Inc.'s H. C. Foster 1 NEc n½se¼ sec 13, blk 43, T&P Ry sur, T-2-S, sp. W. H. Dunning, Jr. et al's H. E. Cummins 1-B, SEc ne¼ sec 33, blk 45, T&P Ry sur, mim. Grisham-Hunter Corp.'s R. B. Cowden 1, c nw sw sec 10, blk 45, T&P Ry sur, T-2-N, dr 1600 ft; R. B. Cowden 2, c se¼ sec 8, blk 45, T&P Ry sur, T-2-N, sr 885 ft. Gulf's C. A. Goldsmith-Scharbauer 5, ne¼ sec 22, blk 44, T-1-S, T&P Ry sur, td 4162 ft, flowed 100 bbls oil 12 hrs with 8,624,000 ft. gas. Phillips Pet. Co.-Pure Oil Co.'s Clyde Cowden 5, nw¼ sec 23, blk 44, T-1-S, T&P Ry sur, dr 3255 ft. Stanolind's E. F. Cowden 1-B, NEc sec 14, blk 43, T&P Ry sur, T-2-S, elev 2970 ft, top anhydrite 1720 ft, top salt 1827 ft, top gray lime (est) 3905 ft, pb fr sul w 4445-4456 ft, to 4429 ft, shot 345 qts nitro in pay 4020-4135 ft, flowed 475 bbls initial, with 90 bbls daily allowable.

EL PASO COUNTY—Tri-State Oil Co.'s Chas. & L. M. Kinkel 1, NEc sec 237, S. F. No. 7232, sd 2377 ft.

FISHER COUNTY — Forest Development Co.'s A. M. Dry 1, near c sw se sec 108, blk 2, H&TC Ry sur, elev 2087 ft, sr 3500 ft. John McKeon, Inc. and Ellis & Eubank's C. C. Wourland 1, NWc sw nw sec 15, blk 21, T&P Ry sur, elev 2126 ft, dr red beds 1045 ft. Tide Water and Merry Bros. & Perini, Inc.'s M. Howard 3, NWc se ne sec 180, blk 2, H&TC Ry sur, sul w 3697-3701 ft, pb to 3688 ft, shot 20 qts 3655-88 ft, used 1000 gals and 2000 gals acid, initial 275 bbls oil.

GAINES COUNTY—Landreth Prod. Corp. et al's W. H. Kirk 1, swc sw¼ sec 22, blk A-21, PSL sur, elev 3271 ft, top anhydrite 1950 ft, top salt series 2047-2725 ft, top brown lime 4021 ft, top white lime 4315 ft, tested dry at 4703-88 ft, dr 4816 ft. Humble's W. Eubank 1, c sw sw sec 6, blk AX, PSL sur, sp.

GARZA COUNTY—M. L. Richards et al's U. U. Post 1, NWc se¼ sec 1232, D. L. Phillips sur, A-938, dr 450 ft. Grisham-Hunter Corp.-Brown Eagle Oil Co.'s J. R. Sullivan 1, nw¼ sec 3, S. E. Harper sur, A-1118, dr 1800 ft.

GLASSCOCK COUNTY—Floyd C. Dodson et al's J. G. Carter 1, SWc 160-ac lse, sec 8, blk 33, T&P Ry sur, T-3-S, lcn. Bruce Frazier et al's E. Patterson 1, NWc ne ne sec 188, blk 29, W&NW sur, elev 2619 ft, dry and abd 1450 ft. Shell's L. S. McDowell 1, s½ sec 41, blk 34, T&P Ry sur, T-2-S, lcn. M. B. Stanton et al's W. P. Edwards 1, SEc nw se sec 11, blk 34, T&P Ry sur, T-2-S, elev 2590 ft, dry and abd 983 ft.

TOM GREEN COUNTY—Spinner Oil Co.'s B. Reed 1, swc sub-div 39, Mayson & Perry sur, sd 2235 ft; D. B. Horn 1, sec 137, Washington Co. Ry sur, mim.

HOCKLEY COUNTY—The Texas Co.'s Bob

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Slaughter 1, League 38, Zavala C. S. L. sur, lcn.

HOWARD COUNTY—D. C. Reed & C. J. Schmid's Walter Pike 1, c se se sec 24, blk 33, T&P Ry sur, T-1-N, elev 2514 ft, salt series 950-1615 ft, top sul w 3394 ft, td 3398 ft, dry and abd.

HUDSPETH COUNTY — Haymond Krupp Oil & Land Co.'s S. J. Thaxton 1, near SEc ne se sec 34, blk 74, T&P Ry sur, Tsp. 6, ur 1131 ft. Costello Oil Corp.'s L. S. Costello 1, SWc sw¼ sec 36, blk 70, T&P Ry sur, No. 1879, mim.

JONES COUNTY—Consolidated Oil Co.'s Chas. Hamilton 1, sec 21, blk 4, H&TC Ry sur, lcn. Chas. Gyr and S. L. Davis' L. E. Clyburn 1, NEc 80-ac lse, Sub-div 27, H. Millard sur, sp and sd. N. H. Martin & Son's M. & E. B. Spurrier 1, (20-ac), W. C. Walker sur, 3 mi n Nugent, testing oil sand 1928 ft. Dobbs Oil Co. (was W. K. Wood et al's) W. J. McCreight 1, SEc 99-ac lse, sec 14, Orphan Asylum Lands, near Anson, mim.

LOVING COUNTY—Mason Oil Co.'s Minnie Kyle 2, SWc ne¼ sec 20, blk 55, T&P Ry sur, Tsp. 1, dr 315 ft. Porter Rankin et al's W. D. Johnson 1, nw¼ sec 12, blk 57, T&P Ry sur, Tsp. 1, elev 2904 ft, top Delaware lime 3119 ft, top sand 3151 ft, swabbing oil and water, td 3214 ft.

MENARD COUNTY—Wilcox O.&G. Co.'s Lee Murchison 1, SWc sec 158, Abst 1840, elev 2190 ft, Strawn lime 1645-2010 ft, top Ellenberger lime 2078 ft, dry and abd 3507 ft.

NOLAN COUNTY—N. B. Hall, A Glenn et al's Georgia Tech 1, sw¼ sec 89, blk 24, T&P Ry sur, elev 2330 ft, sp and sd.

PECOS COUNTY—R. O. Clark et al's Mrs. E. C. Powell 1, west cor sec 96, blk 10, H&GN Ry sur, lcn. Dobbs Oil Co.'s J. M. Rooney 1, near c ne ne sec 12, blk 125, T. & St. L. Ry sur, elev 3005 ft, top anhydrite 970 ft, fsh 2060 ft. Lee Pet. Corp.-Bruce McKague's R. P. Hinyard-Humble 1, swc sec 2, blk 144, T. & St. L. Ry sur, dr 110 ft. Marion O&G Co.'s W. Courtney 5, NWc sec 78, blk OW, T. M. Ry sur, sp and sd. E. R. Minshall et al's J. B. Baker 1, near c sw nw sec 25, blk 146, T. & St. L. Ry sur, dr 415 ft. Stanley A. Thompson et al's Fisinore Cattle Co. 1, se¼ sec 53, blk D, GC&SF Ry sur, Ordovician lime test, dr 1350 ft. Trans-Texas Oil Co.'s F. M. Gallaher 1, NEc nw sec 9, blk 51, T&P Ry sur, Tsp. 10, sd 480 ft; Popham Land & Cattle Co. 1, se¼ sec 235, blk 11, GH&SA Ry sur, sd 560 ft.

RUNNELS COUNTY—Golden Pet. Co.-John Castor's H. Giesecke 1, blk 150, sub-div 3, Jas. Hughes sur, dr 435 ft.

REEVES COUNTY—R. W. Clark, F. S. Miller & Frank Babcock's Radford 1, near c of e line sec 39, blk 56, PSL sur, elev 3169 ft, sd 810 ft.

SCHLEICHER COUNTY—Cardinal Oil Co.-Rowan-Nichols Oil Co.'s J. A. Whitten 1, c ne nw sec 35, blk L, T.C. Ry sur, elev 2353 ft, testing water sand 4867 ft. Mangus Oil Corp.'s Judkins-Spencer (Pure) 1, c sw¼ sec 4, GC&SF Ry sur, blk V-28, or Hooper-Wade sur, blk A, elev 2209 ft, show gas 4350-70 ft, top Ellenberger 5902 ft, tested sul w, pb fr 6527 ft, to acidize.

SCURRY COUNTY—C. W. Guthrie et al's T. E. Sorrelle 1, SEc sec 101, blk 97, H&TC Ry sur, dr 1175 ft.

STERLING COUNTY—W. B. Hogan et al's Geo. Richardson 1, sec 110, blk 6, H&TC Ry sur, lcn.

TAYLOR COUNTY—A. R. Forrester et al's O. C. Prescher 1, near NEc nw ne sec 14, blk 86, J. R. Shipman sur, machine. Geo. Callihan et al's S. J. Winter 1 (19.4-ac), Sub-div 3, Alex Thompson sur No. 20, dr 2100 ft.

TERRELL COUNTY—F. C. Bates & J. H. Felps' J. H. Felps 1, SEc nw¼ sec 5, G. W. Turley sur, blk A-4, elev 2185 ft, sd 5635 ft.

TERRY COUNTY—J. A. Estes et al's Brownfield 1, SEc nw sw sec 23, blk T, D&W sur, lcn.

UPTON COUNTY—Brewer & Smith, Inc.'s Cordova Union 1, SEc nw¼ sec 19, blk 1, MK&T Ry sur, elev 2515 ft, td 2072 ft, used 2000 gals acid and pumped 298 bbls oil 16 hrs. Geo. B. McCamey et al's Cordova Union 1, near SWc ne¼, sec 19, block 1, MK&T Ry sur, machine.

WARD COUNTY—C. H. Mahres et al's P. Wilson 1, sec 133, blk 34, H&TC Ry sur, sd 150 ft.

WINKLER COUNTY—Crafton Oil Co. et al's J. B. Walton-Pure 2, SWc ne¼ sec 1, blk B-3, PSL sur, lcn; Walton-Pure 3, NWc sw¼ sec 9, blk B-3, PSL sur, dr 1300 ft. Atlantic O. P. Co.-Wahlenmaier Pet. Corp.'s Fred Leck 1-B, NWc nw¼ sec 3, blk 26, PSL sur, re-cemparted cas, td in big gas 2958 ft. Wm. H. Dunning, Jr., et al's B. F. Jenkins 1, SWc s½ s½ sec 21, blk 77, PSL sur, dk. Gulf Oil Corp.'s Keystone 13, NWc sec 6, blk B-2, PSL sur, drl plugs, td 3300 ft. R. H. Henderson et al's R. A. Leck-Gulf 1, NEc sec 43, blk 74, PSL sur, sd for fuel 850 ft. Humble's J. B. Walton 2-C, sw ne sw sec 34, blk 74, PSL sur, lime pay 3005-3080 ft, flowed 2032 bbls 18 hrs via choke on 2½-in tubing; Walton 3-C, SWc se¼ sec 34, mim. Fred Hyer et al's Cowden Cattle Co. 1, c nw¼ sec 8, blk A-56, PSL sur, elev 3082 ft, top anhydrite 1230 ft, top salt 1500 ft, dr 4500 ft. Illinois Oil Co.'s W. A. McCutcheon-Conoco 1-A, NWc sw¼ sec 16, blk B-3, PSL sur, dr 2380 ft; McCutcheon-Conoco 1-B, NWc se¼ sec 25, blk B-3, PSL sur, dr 1980 ft. C. M. "Dad" Joiner et al's Cowden-Evans 1, near c nw¼ sec 46, blk 73, PSL sur, elev 3203 ft, top anhydrite 1580 ft, top salt 1640 ft, top Yates sand 2930 ft, dr 4160 ft. K. D. Oil Co.'s Pink Mitchell 1, NWc se½ ne¼ sec 23, blk B-10, PSL sur, elev 2814 ft, top anhydrite 1010 ft, top salt 1070 ft, sdo 1150 ft. Paul Osborn et al's L. Daugherty-Wentz 1, SWc W½ sec 3, blk C-23, PSL sur, lcn. Shell Pet. Corp.'s R. A. Leck 1, NEc se¼ sec 32, blk 74, PSL sur, sd for production test, td 3051 ft. Reed & Duffy's John Sealy 1, NWc sec 8, blk "A", GMMB&A sur, machine. Wahlenmaier Pet. Corp.'s J. B. Walton-Leck 1-D. SWc n½ sw¼ sec 3, blk 26, PSL sur, mim. Wahlenmaier & Atlantic O. P. Co.'s J. B. Walton-Leck 2-C(A), skid rig.

YOAKUM COUNTY—E. R. Bahan & R. R. Rhodes' Mrs. Alice Henard 1, c sw¼ sec 367, blk D, John H. Gibson sur, trace gas 1672-1700 ft, elev 3691 ft, top anhydrite 2279 ft, dr 2410 ft. Lou G. Stogner et al's Googins-Roosevelt 1, SEc ne¼ sec 215, blk D, John H. Gibson sur, dr 2150 ft.

SOUTH TEXAS

ARANSAS COUNTY—Buckingham Oil Co.'s McCampbell 1, James Orick sur, 2 mi nw of Aransas Pass, td 7501 ft, pb 6534 ft, blew out while making dst, move in new rig.

ATASCOSA COUNTY—R. C. Lee, Trustee's U. A. Doumch 1, 152-ac tr, blk 10, J. T. Russell sur No. 1222, 3 mi n Poteet, set 7 in csg 3460 ft, top chalk 3503 ft, sd for repairs 3526 ft. Helvetia Oil Co.'s Susie Pratt 1, 176-ac tr, J. de la Garza sur No. 46, 1 mi nw Anchorage, dr 640 ft.

BASTROP COUNTY—Marts & Beaven's Parkford & Jenkins 1, center lot 24, Bastrop Town tr, dr 2750 ft. J. E. Mills' C. O. Randle, 100-ac tr, B. Brymer sur, 4 mi se Cedar Creek field, td 2440 ft, 5-3/16 in csg 2228 ft, washing to bottom.

BEE COUNTY—Geo. M. Church et al's C. A. Ray 1, Anna Burk sur, 2 mi e Beeville, coring 4500 ft. Dirks Bros' M. M. Bergel 1, 330 ft nl & el of s 45 ac of w 86 ac of E. C. White sur, ½ sw Voss Field, mim. Eden Oil Co.'s J. E. Copeland 1, 1723 ft nwl & 1650 ft swl of Obed Marshall sur, ru. Lonnie Glasscock's Holzmark 1, J. A. York sur, abt 1850 ft w Holzmark field disc well, d&a 4428 ft. Fred Haworth Jr.'s J. E. Copeland 1, Obed Marshall sur, 3½ mi nw Pettus, td 4252 ft, recemented, d&a, 4252 ft. Howeth & Swiger's C. A. Voss 1, Samuel May sur, Ab 230, 2½ mi sw Ray (West Tuleta) field, td 4019 ft, Pettus sand 4015-19 ft, dst show 110 ft plo, 7½ lbs pressure 10 min, set 7 in csg 4015 ft, comp. 98 bbls day ⅛ ch, tp 250 lbs, cp 450 lbs. Marine Oil Corp's J. C. Woods 1, 427-ac tr, J. Ryan sur, disc well, Beeville field, sd 5831 ft. Nichols & Quinn's J. R. Scott 1, blk 7, Howeth & Swiger sub, Uranga Gr, sp and sd, wor. H. A. Pressey's R. T. Hicks 1, 1120-ac tr, Jose M. Uranga Gr, ab 568, 4½ mi s of Normana, td 3568 ft, broken snd, shale and shells 3482-3568 ft show dry gas, now sd.

BEXAR COUNTY — American Gas Co.'s Oliver No. 5, 400-ac tr, M. F. Rodriguez sur, Gas Ridge, dr 3108 ft in hard lime. Carter & Ingersoll's Louis Mann 1, 60-ac tr, John Christopher sur, 3 mi s Von Ormy, td 1085 ft, running 6⅝ cas & will then dd into chalk. Joe Deupree's Mrs. R. S. Nina (R. S. Coffey) 1-A, Rodriguez sur, 7 mi s San Antonio, sd 1200 ft, to recement csg at 1059; R. S. Nina (Coffey) 2, F. Rodriguez sur, dr 895 ft, sh; S. G. Winter 1, 100- ac tr, Fernando Rodriguez sur, 1 mi w Russell 1, temp abd. 1853 ft, 6⅝ inch cas 1285 ft. H. J. Moore's Mrs. Lena Eisenhauer 1, 80-ac tr, Gertrude Rodriguez sur, 9 mi ne of San Antonio, dry & abd, 1031 ft. O. M. Owensby's Mina Coreth 1, 284-ac tr, Adam Stafford sur No. 49 E. Eckert field, still sd 1091 ft. (dropped until work resumed) H. B. Schumacher's Hilda Gillette 1, 49-ac tr, M. C. de Alamiz sur No. 20, 7 mi s San Antonio, dr 800 ft. F. M. Shaver's A. W. Bitter 2, Jose Baerrera sur No. 58, 2 mi nw Von Ormy, coring 1175, top chalk 1171 ft. Fred Thorman's A. L. Salm 1, 330-ac tr Peter N. Hays sur No. 3, dr 1442 ft. R. P. Whitfield's Col. John Sweeny 1, GH&SA RR sur, 11 mi sw San Antonio, coring 733 ft. Woodward & Hardie's R. W. Devilbiss 1, John W. Devilbiss sur, 1 mi w Thelma, coring 2280 ft.

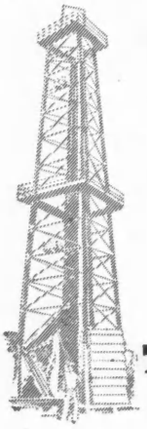
BROOKS COUNTY—The California Co.'s E. Garcia 1, tr No. 3 Las Mestinas de Gonzalina gr, Alta Mesa dist., sd 8022 ft with stuck ds. Fairway Prod. Co.'s Wm. Singer 1, sur 312, 1500 ft, Alta Verde disc, dr 250 ft. Starr Dev. Co.'s Wm. Singer 1, Sec 436, abt 700 ft Alta Verde disc, test sul w in snd 1007-21 ft, td 1040. Set 5½ in csg 840 ft, pert in sand 810-25 ft.

CALDWELL COUNTY—H. B. Starkey's (J. J. Elam et al's) Francis-Brown-Cochran 1, W. F. Young sur, 5 mi e Luling, sd 1200 ft, shale. W. C. Jennings & Whittington's McMahan 1, James Pinchback sur, se Lockhart, td 2343 ft, pb to 2290 ft, in Eagleford, 5-3/16 csg at 1445 ft, testing.

CALHOUN COUNTY—Blanco Oil Co. & Al Buchanan's P. H. Welder, D. L. Palmer sur, 1 mi ne Heyser disc well, lcn. Continental Oil Co.'s Austin (Vandenburg) 1, sec 12, blk "H" Pedro Garcia sur, 1 mi n of other heaving shale wells, Seadrift prospect, dr 6228 ft. Humble Oil & Refining Co. & Plymouth Oil Co.'s E. H. Welder 2, ¾ mi sw Heyser disc well, Jose Maria Rios sur, dr 4734. Matagorda Oil Corp.'s (Hilton & Miese) J. Brundrett 1, Wm. Bittle sur, sd 502 ft.

DEWITT COUNTY—L. W. Capps et al's H. Buchorn 1, 330 ft nl & el of 211.1-ac tr, S. V. Slade sur, at the town of Lindenau, 5 mi W Cuero, ru. Universal & Gillespie's Schubel 1, C. Fitzgerald sur, abt 2 mi nw Yoakum, td 1550 ft, set cas wocs.

DUVAL COUNTY — Mills Bennett Prod. Co.'s W. R. Peters 2, Peters area, sand 2619-33, 5 in cas 2620, comp flowing 15 bbls hr ¼ ch. Conservative Oil Co.'s DCRC 1, sur 51, 2 mi se Colemena field, td 1553 ft, set cas on bottom, perf above, testing. Dulce Oil Co. & Harvey & Henderson's E. R. Hagist 1, sur 291, ½ mi w Seven Sisters field, d&a 2601 ft. Gifford Oil Co.'s A. S. Roach 1, sur 200, 7 mi sw Driscoll field, dr 1125 ft. C. G. Glasscock's Milano Land & Gardens Co. 2, sec 88, 4 mi se Loma Novia, td 3298 ft, set csg 3291, woc. Frank J. Gravis et al's Gravis et al 1, sec 250, 9 mi w San Diego, td 5150 ft, sd 5137 ft in sdtr hole; Schallert 1-A, 2385 ft el, 580 ft nl of sec 555, Palangana salt dome, ru. M. D. Mastin's D. Ruiz 1, sur 128, 1 mi w Hoffman field, fsh for ds 3003, set csg abt 2700 ft, perf 2604-10 ft, testing. W. C. McBride Inc.'s C. & A. B. Cueller 1, sur 123, ½ mi w Hoffman field, dr 2838 ft. Navarro Oil Co.'s W. R. Peters 1, w 380-ac sur 39, n of Peters field, sd 2364 ft for water. John J. O'Hern's L. B. Carrillo 1, sur 192, 4 mi s Hoffman field, dr



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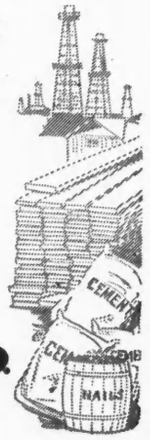

2640 ft. Randon Oil Co.'s Central Securities Co. (South Texas Bnk & Trust Co.s) 1, lot 23, Central Securities sub., Diego Hinojosa 5 mi sw of Realitos, dr 1625 ft. Rogers & Rogers' Rita S. de Pena 1, R. S. de Pena plat, El Mesquite Trindad Vela gr, se Cole field, td 2862 ft, sand 2850-62 ft, set csg 2845 ft, wocs. Smith & Hamill's Juan Benavides 1, Juan Benavides lands, E. Mesquite gr, dr 1725 ft. Stanolind O. & G. Co.'s Ira G. Yates 5, sec 416, Labbe, prep to sp. Starr Development Co. Inc.'s J. B. Peal sur 796, one mi ne Lopez, dk.

FRIO COUNTY — Amerada Pet. Corp.'s Halff & Oppenheimer 7, B. J. Gilman sur, Pearsall, sd 3926 ft, Arthur Michael 2, A. Lynch sur No. 321, Pearsall, dr 500 ft; C. A. Miller 1, 394.3-ac tr in B. Satello sur, No. 323, Pearsall, sp. Termo Co. of Texas' J. D. Arp 1, 102-ac tr, S. Blain sur, 4000 ft w Pearsall field, dr 5583 ft, top Austin chalk 5502 ft.

GOLIAD COUNTY — Keystone Royalties Co.'s C. B. Wood 1-A, Rios sur, 3 mi e Berclair, sd 6712 ft, Claude Morgan et al's Mrs. W. O. Maetze 1, G. Barrera sur, mim. Zeni Oil Co.'s M. Lutenbacher 3, sw ¼ of blk 25, Goliad Town sur, 2 mi s Goliad, dr 4250 ft, dst 4150-50 ft, slight gas flow.

GONZALES COUNTY—Tull et al's Boska 1, 61.2-ac tr, B. McClure sur, co 2050 ft.

GUADALUPE COUNTY — Ira L. Armstrong's F. H. Fieke 1, 1500 ft nl and wl of 304-ac tr, B. & G. Fulcher sur No. 19, near Staples, sd 340 ft. Pat Armstrong's J. Z. Fulcher 3, Robt. Smith sur, 2 mi sw Prairie Lea, sd 2477 ft. J. E. Clark's E. W. Williams 1, Green DeWitt sur No. 13, 4000 ft sw S Darst Creek, td 2509 ft, chalk 2358 ft, 6⅝ inch csg at 2357 ft, pb to 2495 ft, completing, show little oil. Clark & Weinert's W. O. K. Anderson 1, Green DeWitt sur No. 11, 6 mi s Kingsbury, hole lost 2232, skid over 50 ft, sp. Eickenroht & Gallagher's O. H. Jahns 1, 840-ac tr, Green DeWitt sur, 3 mi sw South Darst Creek, td 3134 ft in Buda, ream to 2750 ft, will set csg.

HIDALGO COUNTY—J. T. Barlow et al's Chapa 1, tr 252, Por 39, n side Samfordyce field, td 3200 ft, pb 2800 ft, dr plugs, milling. Gulf States Oil Co.'s J. C. Engelman 3, lot 3, blk 70, Las Mestinas gr, 700 ft e Mentenas disc well, td 6812 ft, 7 in csg 6754 ft perf 6688-6896, spraying distillate. Maxwell-Mundy-Morris' Southland Dev. Co. (Hidalgo County Water Control & Impr. Dist.) 2, lot 11, blk 20 Alamo Land and Sugar Co. sub, Alamo gr, 4 mi s Alamo, sd 731 ft. Quintana Pet. Corp.'s John C. Engelman 1, lot 10, blk 94, Mestenas gr, 4 mi se Mestenas field, td 8904, cutting out stuck ds 7000 ft. Dayle L. Smith Oil Co.'s Fairbanks & Young 1, blk 44, porc 46, Reynosa Juris, 4 mi s Samfordyce field, sd 1856 ft. Union Sulphur Co.'s ARGL & I 7, tr No. 2309, blk 59, 4000 ft e Mercedes field, td 7608 ft, 5 in csg 7530 jetting through perfs 7540-49 ft, ARGL & I Co. 8, lot 2120, blk No. 87, N. Capisallo District, N. Mercedes field, td 7822 ft, 5 in csg 7822, pb to 7500 ft, testing; ARGL & I Co. 9, Farm tr 2268, blk 59, n Capisallo District, ½ mi e Mercedes disc well, td 7500 ft, sdtr 7318 ft. G. W. Wheeler's F. Farias 2, Sh 255, Por 39, Samfordyce area, td 3200 ft, perf abt 2830 ft, completing. Yates McCurry's Southland Dev. Co.'s 1, lot 13, blk 24, Alamo sub, 2½ mi s of Alamo, sp and sd.

JACKSON COUNTY — Steinberger Pet. Corp.'s Drushell 1, lot t, Gale sub., Hayes ranch, N. Rodriguez sur, edge Edna gas field, dr 920 ft.

JIM HOGG COUNTY—J. J. Cosner's E. Vela Hrs. 1, blk 5, Clark & Cowden sub, sur 571-572, sh 1, El Peynote gr, 5 mi se Henne-Winch Farris field, lcn. Theo. Hicks et al's Kohler 1, blk 9, sub Noriscitas gr, 3 mi nw Hebbronville, lcn. Magnolia Pet. Co.'s Magnolia-Holbein 1, sur 36, Villareal sub, Agua Nueva de Arriba gr, dr 2675 ft.

JIM WELLS COUNTY—Gist & Graddy's B. W. Owens 1, Poitevent sur, nw Bentonville field, sd 1934 ft; J. Bennett 1, lot 87, sec 76, Holdeman sub., 2 mi w Premont field, dr 1265 ft. E. M. Jones' R. Adams 1, se/cor of blk 47, Waldron Oil & Gas sub of Robert Adams Ranch, 1½ mi w Alfred, dr 4750 ft. La Jita Corp.'s Fred Erck 1, sec 15, 1 mi n of Bentonville disc well, dk, W. E. Pope 1, sec 20, 1½ mi w of King Ranch field, coring 5227 ft. Stanolind O. & G. Co.'s Frame & Bowers 1, sec 14, King Ranch sub., one mi ne Bentonville disc, dr 3645 ft; J. E. Siam 1, sec 18 n offset discovery well Bentonville field, td 5850 ft, set csg 4880 ft, dr plugs & perf; J. J. Thompson 1, sec "A" King Ranch, 150-ac tr, dr 4825 ft; E. W. Raney 1, sec 16, King Ranch sub, w offset disc well Bentonville field, snd 5364½-78 ft, comp 9 bph 5/32 ch. Texan Royalty & Lucey Pet.'s Co. Leon Dodd 1, sec 15, King Farm lots, nw offset disc well Bentonville, td 6500 ft, perf in 4000 sand, comp gasser, equalized pressure 1625 lbs.

KARNES COUNTY—DeGraffe & Reele's Cochron 1, McConnell League, 5 mi ne Riddleville, ru and sd. Hichman et al, R. L. Barnett 1, Alex Hunter sur, dr 1435 ft. Worth Oil Co.'s E. Hysaw 1, 1069.8-ac tr, Don Erasmus Seguin gr, w of Kennedy, set sur csg, wor.

KERR COUNTY—Auld & Evan's I. R. Henner 1, sec 13, BS&F sur, 25 mi nw Kerrville, sd 2838 ft.

KIMBLE COUNTY—Dr. B. R. Thomas' B. D. Rust 1, sw ¼ sec 47, BS&F sur, 13 mi nw Junction, sp and sd.

KLEBERG COUNTY—McCork & Daybault's Killam 1, lot 7, sec 53, DT&I sub., 5 mi se Recardo, lcn.

LASALLE COUNTY—Davenport & Talbot's G. Watkins, sur 103, 25 mi e Encinal sd 2729 ft. Kennedy & Johnston's Gilmer & Wildenthal 1, 140-ac tr, sur 283, 8 mi se Cotulla, partly ru and sd. Paul Meaders & Adair et al's Reed 1, sec 136, T. Conlan sub, 15 mi e and 10 mi s of Cotulla, sd 2792 ft. W. H. Vernor's M. G. Jeffries 1, sec 726, HE&WT Ry sur, 10 mi se Artesia, lcn.

LAVACA COUNTY—Cole Pet. Co.'s F. A. Kurz 1, 75-ac tr, E. Goodman sur, 3½ mi n Shiner, dr 1365 ft. Goode & Mayton's M. Schaeffer et al 1, 481-ac lse, W. R. Hensley sur, lcn.

LIVE OAK COUNTY—Dirks Bros.' A. E. Nichols 1, S. Ryan sur, dr 1125 ft. Adolph Douvre's San Antonio Joint Stock Land Bank 1, plat 27, Tips subd, Richard Everett sur, 2 mi nw Three Rivers, dr 725 ft. Inter-Allied Pet. Corp.'s Aetna Life Ins. Co. 1, J. Poitevent sur, 49.47-ac tr, 6 mi ne Dinero, dk and sd. J. J. McRoberts et al's J. D. Mahoney 1, 142-ac tr, Thomas Henry sur, 3 mi w Three Rivers, dr 525 ft. Windsor Oil Co.'s B. E. Stolte 1, tr 9, J. Ingram sur, Ab-261, n part of county, dr 2668 ft.

McMULLEN COUNTY—Ranier Oil Co.'s E. R. Hagist 1, sur 25, 20 mi from se cor county, dry and abd 2506 ft. C. C. Shumway's Shiner Ranch 9, sec 51, Shumway sub, Shiner Ranch, 9 mi s Wetz, dr 425 ft.

MEDINA COUNTY — Frank A. Brown's Mary Winn 1, John Ward sur, dr 1100 ft. R. S. Bynum's Melton 1, 160-ac tr, sur 14½, d&a 982 ft. N. C. Johnson's Taylor 1, 320-ac tr, sur 136, dr 900 ft. Thomas & Rife's Amelia Zadich 1, 2800 ft nl, 250 ft wl of S. O. Lubbock sur, No. 509¾, se cor county, dr water well.

MILAM COUNTY—J. O. Kilgore, Tr.'s W. R. Newton 1, J. Reed sur, Buckholt, sd 2010 ft.

NUECES COUNTY—Mills Bennett's J. K. Ordner 1, 330 ft sl and el of 120-ac tr, AB&M sur, No. 410, ab 991, ½ mi w Saxet field, coring 3950 ft. V. L. Blanchard's T. H. Isenses 1, blk 8, R. Shaeffer land sub, 1½ mi w Clarkwood, td 5400 ft, running electric formation tests. Coastland Oil Co. & Keystone Royalties' (Paul Benedum et al) Page Bros. 1, s 50-ac share 2, Geo. Franks sub, 3300 ft w Saxet field, td 5931 ft, pb and test below 5700 ft. Conroe Dr. Co.'s Rand Morgan 1-B, BS&F sur No. 403, Saxet, dr 6175 ft. J. T. Cox's John Haney, share 11, Harney lands, Gregoria Farias gr, 2½ mi se Callahan, sd 2085 ft. M. R. Hurlburt's J. C. Phillip 1, lot 9, 20-ac tr, sur 48, Flour Bluff Encinal Garden Tracts, 9½ mi se Corpus Christi, coring 7485 ft. W. P. Hinds' Edwin Flato 1, center blk 8, sec 107, 1½ mi sw Clara Driscoll field, sd 3880 ft for repairs. O. W. Killam's Betty Ellich 1, 86.28-ac tr, sec 109, Pauls sub, 4000 ft sw Clara Driscoll field, td 3899 ft, re-bldg dk and rig to wo. Terminal Oil Products Co.'s R. V. Thurman 1, sw¼ sec 10, Flour Bluff Garden Tracts, Rincon del Oso gr, coring 5980 ft.

REFUGIO COUNTY — Mills Bennett Prod. Co.'s Fred Walzel 1, 330 ft nl and el of sec 13, Bonnie View sub, E. Lopez sur, 7 mi s Refugio, dr 1250 ft. Benedum & Trees' R. H. Welder 1, commence west corner Friedline pasture, thence n 53 degrees east 3888 ft, thence s 36 degrees east 4443 ft to location in Jaun Pabedano sur, Ab 49, dk. Tide Water Oil Co.'s E. G. Langgrof 1, 220-ac tr, J. Collyer sur, eastern portion county, bldg road.

SAN PATRICIO COUNTY — Atlantic Oil Prod. Co.'s Maryland Trust Co. 1, 809 ft w and 330 ft n fr s cor of blk 17, B-C sub, 1150 ft sw discovery well, Aransas Pass field, lcn. Benedum & Trees' Mrs. E. H. Welder 2, sec 19, Welder Ranch sub, 3½ mi ne Sinton, td 7019 ft, pb 5027 ft, completing; E. H. Welder 3, sec 19, Welder Ranch sub, testing 6116 ft. C. B. Bunte's W. C. Mayfield 1, tr 11, Roos sub, 2 mi n White Point field, sp & sd. O. W. Killam's J. F. Green Est. 1, 782-ac tr, R. Roos sur, 1½ mi sw Taft field, sp. Joe Lundin & Rowan and Hope's Mrs. E. H. Welder 1, sec 20, Welder Ranch sub. 2½ mi sw St. Paul, dr 4525 ft. Plymouth Oil Co.'s E. H. Welder 2-D, sec 4, Welder Ranch subd, 1 mi e Sinton field, dr 1068 ft. Taft Prod. Co.'s W. D. Thomas 1, 150 ft nl and el of tr 5, sec 6, Taft Farm lands sub, 1 mi e Taft field, dr 350 ft.

STARR COUNTY—J. F. Anderson's Yzaguirre 1, 139-ac tr, porc 79, coring 1870 ft. Bishop & Henshaw's W. D. Martin 1, sur 627, 13 mi n Rio Grande City, sd 2300 ft, for water. Porter Evans' SCCC 1, porc 89, 10 mi se Rio Grande City, ru; H. F. Ferry 1, blk 3, Evans sub, Ferry lands, porc 86, 7 mi se Rio Grande City, ru. H. C. Harter's Sanchez 2, lot 3, sh 72, porc 72, 9 mi n Roma, coring 1050 ft. A. A. Kelley's H. Gonzales 1, 300 ft wl, 100 ft nl of

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100-ac lease, sh 62, porc 71, sp and sd. Killam & Stagg's S. D. Ricaby 2, porc 83, Camargo Juris, 3 mi e Rio Grande City field, dr 2150 ft. Larkin & Warr's Kelsey Bass 1, lot 8, Coastal sub, porc 87, Barbacosa area, sd 5000 ft, contract depth. Ed Leach's Wardner Trustee (Donna Est., Inc.) 1, porc 84, sd 2149 ft.

WEBB COUNTY — French Oil Corp.'s S. Benavides 1, sec 2254, 3 mi n Oilton, coring 2125 ft.

WILLACY COUNTY — Shell Pet. Co.'s Yturria Land & Cattle No. 1, sh 64, San Jaun de Carritos gr, La Sal Veja prospect, sd 5486 ft, pb to 4600 ft, dr 5210 ft in sdtr hole.

WILLIAMSON COUNTY — Fritz Fuchs' Jackson 1, Fred Murray 80-ac tr, H. Owen sur, ru. Graham et al's V. F. Pfluger 1, 2083 ft el, 4350 ft sl of J. Jordan sur, near Coupland, sd 300 ft. James H. Holdeman et al's Amor Forwood 1, 160-ac tr, HT&B Ry sur, sec 4, sur 14, sd 965 ft. W. H. Moody's J. F. Stiles 1, 230-ac tr, J. Bevil sur, ½ mi sw Thrall, lcn.

WILSON COUNTY—Otto Hierholzer's E. M. Hierholzer 1, B. Salinas sur, 12 mi sw Floresville, lcn. A. G. Reimenschneider's Lon Harrell 2, 209-ac tr, Manuel Baerrera sur, 5 mi s of Floresville, sd 740 ft.

ZAPATA COUNTY—Ivan Howard's Y. Martinez 2, blk 1, sur 241, 4 mi nw Cuellar field, sd 2275 ft, for orders. J. J. Perren's Uribe 1, blk 31, Perron sub, sd 485, San Ygnacio sub, Borrego gr, 12 mi ne San Ygnacio, ru & sd, dropped until work begins.

ZAVALLA COUNTY—Bay Oil Corp.'s Nat'l Bank of Commerce 1, sec 43, blk "A," AB&M sur, 16 mi se Batesville, coring 6506 ft, 7-in csg 5724 ft. W. L. Bridges' E. B. Flowers 1, sec 19, blk 1, I&GN Ry sur, sd 450 ft. Frank Buttram et al's Whitecotton 1, AB&M sur No. 1, sd 5475 ft, top chalk 5281 ft. Leona Oil Corp.'s George West 1, C. Bustillo sur No. 1, top chalk 5760 ft, sd 6020 ft, contract depth.

TEXAS GULF COAST

AUSTIN COUNTY—W. H. Mitchell's Fenner 1, s of Kenney, J. Fitzgibbons sur, woc 125 ft.

BRAZORIA COUNTY—Gulf's Fairfield 1, Lockridge prospect, A. Robeson sur, dr shale 8427 ft. Deep South Oil Co.'s Demmics 1, H. & T. B. sur, sec 40, abn 2002 ft. Texas Gulf Producing Co.'s Sparks 1, Angleton prospect, Wm. Roberts sur, abn 7525 ft. Strake Pet. Co.'s Poole 1, Poole Ranch prospect, W. Eggers sur, dr shale 6890 ft.

COLORADO COUNTY—Sterling's South 1, Garwood area, I. & G. N. sur, sec 41. ru.

GALVESTON COUNTY — Shell's Maco Stewart 1, Hitchcock prospect, J. Spillman sur, dr shale 4885 ft. Sun's Houston Farms Dev. Co. 1, 2 mi se of Hughes 1, D. Buckley sur, dk; Hughes 1, Green's Lake area, W. Baker sur, swabbing 3612 ft.

GRIMES COUNTY—Crooke Bros. et al's Greer 1, near Carlos, P. B. Connor sur, washing to bottom at 2845 ft.

HARDIN COUNTY—Resource Prod. Co.'s Howth 1, sw of Areola, J. Cotton sur, sd 4830 ft.

HARRIS COUNTY—D. B. Cherry et al's Dodger 1, Epsom Downs area, J. T. Harrell sur, lcn. Circle W Oil Co.'s Houston Realty Sales Co. 1, Battle Ground prospect, H. Carpenter sur, dr shale 1800 ft. Houston Oil Co.'s Helberg & Lackner 1, Eureka gas field, R. Reinerman sur, dr shale 107 ft. Zeni Oil Co.'s Perkins 1, Hockley dome, A. Sherrell sur, dr shale 6050 ft.

JEFFERSON COUNTY — C. H. McSpaddin's Burrell 1, Cheek or Lovell Lake area, Wm. Smith sur, dr shale 7786 ft. Shell's Carpenter 1, Nome prospect, M. Pevito sur, dr shale 6062 ft. Sun's Broussard 1, Labelle prospect, B. Blackmon sur, dr sand 8750 ft.

MATAGORDA COUNTY — Marathon Oil Co.'s Kountz 1, Midfield prospect, I. & G. N. sur, sec 11, preparing to spud. Pierce Estate Inc.'s Pierce Estate 1, ne of McCrosty, Wm. Brown sur, dr shale 2810 ft. Sun's Craig 1, Hawkinsville dome, T. Williams sur, swabbing 5175 ft.

MONTGOMERY COUNTY—W. O. Belnoski's Wood 1, Willis prospect, Wm. Weir sur, woc 3757 ft.

ORANGE COUNTY—Coker Oil Co.'s Mansfield 1, s of Vidor, J. W. Hill sur, dr shale 2498 ft. Tide Water's Brown 1, Cow Bayou prospect, M. Latham sur, dr shale 5788 ft.

POLK COUNTY—Turnbull & Irwin's Roberts 1, Ace area, J. F. DeRumayor sur, coring 5057 ft.

WALKER COUNTY — Boone Brother's Thompson Brothers et al 1, w of Trinity, J. Ortego sur, abn 3006 ft. L. M. Gay et al's Stubblefield 1, w of Trinity, G. Badilla sur, dr shale 475 ft.

WASHINGTON COUNTY—Carl Dyer et al's Thomas 1, n of Brenham field, H. Hensley sur, dr shale 1007 ft. Sun's Lauther 1, Clay Creek field, N. Clay sur, dr shale 6347 ft.

WHARTON COUNTY—Smith & McDannald's Presmeyer 1, Lakeview area, H. & T. C. sur, sec 10, dr shale 4709 ft. Pure's Sam G. Shult 1, Blue Basin prospect, L. P. Ogen sur, dr shale 1911 ft.

WYOMING

ALBANY COUNTY—James Lake Oil Co. et al, George & Hunt 1, nw ne se 5-17n-75w dr 690 ft in hole full of water; 12½ in csg set as soon as operators reach depth below water sand.

BIG HORN COUNTY—J. L. Drumheller's Government 2, nw ne se 17-49n-91w, dr 126 ft.

CARBON COUNTY — General Petroleum Corp.'s Union Pacific 1, sw sw nw 5-19s-83w, coring at 2638 ft.

CONVERSE COUNTY—E. B. Jones State 1, sw sw sw 16-32n-69w, dr 2610 ft.

NIOBRARA COUNTY—Lewis Gokel's test in the sw ne 31-34n-62w, setting casing at 1700 ft. H. & H. Development Co.'s Olinger 2, cnl sw ne 1-35n-63w, fsg for bit at 1750 ft. Lakota sand expected upon dr 30 ft deeper; 4¼ in csg set at 1715 ft to so water.

WASHAKIE COUNTY — Wyoming Oil & Refining Co.'s Frison 1, nw sw nw 14-48n-97w, dr 2203 ft.

Controller

The Bristol Company has just published Bulletin No. 444 which describes the new Model 90 Pneumatic Type Controller for temperature, liquid level, and pressure. In this bulletin the principle of operation is carefully written up. There is also other interesting information concerning application of the controllers with drilling dimensions, etc.

Tanks and Couplings

National Tank Company, Tulsa, has recently issued pamphlet No. 30 describing in detail its line of bolted tanks, including steel tanks, wrought iron or galvanized wrought iron. The company also has issued a new bulletin on Tite-Line couplings and unions for oil, gas, gasoline annd water lines.

Diesel Engines

National Supply Company, Toledo, Ohio, has available for distribution an eight-page, illustrated bulletin, No. 93-3-36, describing Superior stationary Diesel engines and portable power units available in two, four, six, and eight cylinder types, with displacement ranging from 183 to 732 cubic inches.

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PIPE LINE THERMOMETER
The Bristol Company

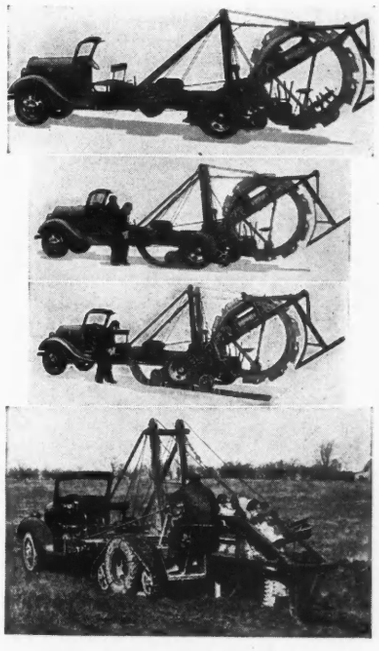
The Bristol Company offers a new recording thermometer for accurately measuring the temperature of natural and manufactured gas in gas lines. This thermometer, Bristol's Model 140-M Fully-Compensated Class 1 Recording Thermometer, is equipped with a quick-responding extension bulb and a compensating device, which makes it possible to use the instrument outdoors the year around under all conditions of atmospheric temperature change.

In this thermometer the temperature-sensitive portion of the bulb is housed in an aluminum (high thermal conductivity) tube, equipped with radiation discs, which greatly increase the exposed area. The disc-shaped aluminum bulb makes the thermometer highly sensitive to every temperature change and is so designed that it is unaffected by temperature conditions outside the pipe line.

SMALL TRENCH DITCHER
The Buckeye Traction Ditcher Company

The Model 16 Utility Ditcher, built by The Buckeye Traction Ditcher Company, of Findlay, Ohio, has a wide range of service in small trench digging. It is used in gas and oil line service, gathering line, general farm and tile ditching, or any work requiring small trench.

Mounted on Ford, Chevrolet, or other standard truck chassis, the ditcher can be moved rapidly from one location to another at regular road speeds. The truck motor furnishes the power for the ditching mechanism through a special transmission. The motor is supplied with an oversize radiator for better cooling facilities.



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Buckeye "Alligator" crawlers are applied direct to the dual rear wheels. Small detachable idler wheels in front and behind the rear wheels increase the crawler area, thereby enabling the ditcher to work on soft ground. These "Alligator" traction wheels may be put on or taken off and conveniently stowed away in approximately 20 minutes.

These machines have a maximum cutting depth of 4 feet 6 inches, and cutting width from 9¼ inches to 16½ inches, and with digging speeds from 1.45 feet to 15.85 feet per minute.

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Humble Oil & Refining Company

Humble Thredkote is a modern thread compound offered by Humble Oil & Refining Company.

Humble Thredkote is manufactured in two grades that, by their combined characteristics, render a complete thread lubricating service to every type of threaded connection. Humble Thredkote No. 1 is a gray paste for use on high-pressure lines, and Humble Thredkote No. 2 is a black paste for use on low-pressure lines and steam lines.

Humble Thredkote is prepared on a special petroleum base which has distinctive lubricating properties. Rust inhibitors are then thoroughly incorporated in the lubricant to form the basis for both grades of Thredkote. The difference in the color and the characteristics of the two grades of Thredkote is caused by the use of a different filler for each grade. Thredkote No. 1 gets its gray color from the very fine zinc powder that is blended into the base while Thredkote No. 2 is black because a graphite is used as a filler.

Thredkote renders a three-point service to all threaded connections. First, by lubricating the threads; second, by sealing the joints; third, by preventing the formation of rust in the connections. When Humble Thredkote is daubed on the threads which are to be made up, the special petroleum base penetrates into the surface of the metal and fills all pores and minute cavities. The lubricating quality of Humble Thredkote allows connections to be started easily and drawn up tight with the minimum of effort, and as the connection is being drawn up the petroleum base is forced out partially, leaving a thin deposit of the filler on the threads. This film of filler, almost like a plating, seals the joint and prevents metal to metal contact on the threads, thereby preventing "freezing" of the connection. The rust inhibitors in the paste prevent the formation of rust on the threads, thereby giving longer service from the connection and making a much easier job of dismantling the line.

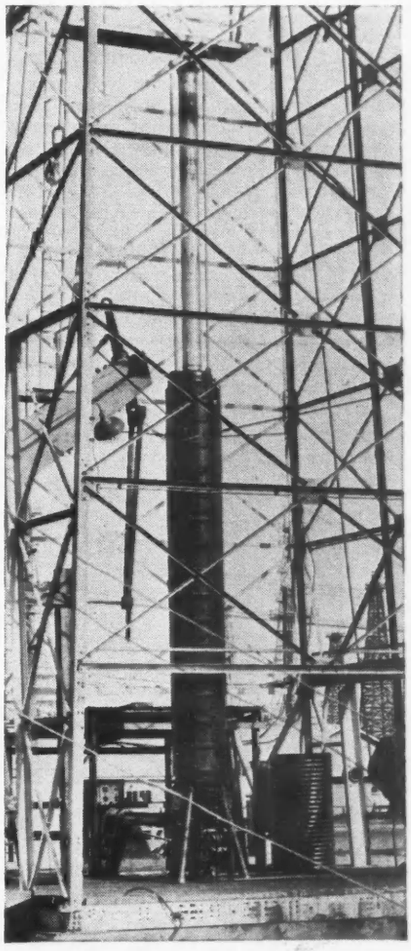
One of the most attractive features of Humble Thredkote is that it does not become hard or brittle after application. This means that all the properties that are present when the connection is being made up are still present throughout the life of the joint. Such a characteristic is especially valuable when Thredkote is used on temporary lines. Connections made up with Thredkote are as easily broken as they were assembled. Used pipe and fittings from lines made up with Thredkote are easily reclaimed and may be used over and over again.

Although primarily intended and designed as a thread sealing compound, experience has shown that Humble Thredkote is ideal when used as a gasket seal.

HYDRAULIC PUMP
Mid-Continent Pump Supply Company

Mid-Continent Pump Supply Company of Tulsa, has developed in conjunction with Pacific Pump Works of California a new type of hydraulic pump that can be driven by either gasoline, Diesel or steam engines or by electric motors.

The pump is made in four sizes for varying well conditions and is built centrally around the well in compact form and is easily installed, even the larger units may be lifted off the floor and hung in the derrick leg in short time. The pump permits the operator to run plunger at speeds wherein the oil will follow the movement of the plunger. The construction allows for additional movement in actuating the plunger in pumping and the stroke is long enough to allow for full stretching of rods. According to the manufacturers,



Mid-Continent Hydraulic Pump

this permits the pumping of the well with fewer strokes.

The junior size of the pump will take wells up to 2000 feet in depth and with capacities not exceeding 75 barrels per day. The No. 2 pump is for wells below 1000 to 4000 feet and in quantities of from 75 to 500 barrels per day, the pump having a stroke of from 8 to 10 feet. The No. 3 size is for wells from 4000 feet to 7000 feet and is capable of a plunger load of 22,000 pounds with stroke from 12 to 15 feet. The No. 4 unit has a range of from 6000 to 10,000 feet with a plunger load of 36,000 pounds and stroke of 15 feet.

PUMPING UNIT

Gaso Pump & Burner Mfg. Co.

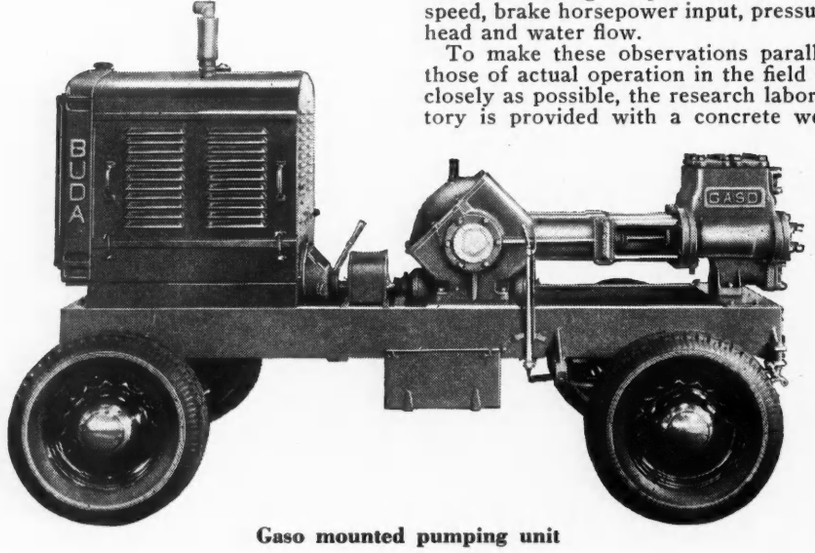
The Gaso Pump & Burner Mfg. Co., of Tulsa, has just announced and is ready to make deliveries on a new pumping unit, which can be furnished mounted on either skids or sturdy pneumatic-tired trailer, and with either internal combustion engine or electric motor drive. Drive is direct through a special flexible coupling.

The unit is suited for general service such as water lines, oil gathering systems, booster station service, or pick-up service. It is light in weight, yet of extra-sturdy construction to insure users long continued, trouble-free service in the field.

Pump is a duplex piston, worm-driven enclosed type power pump. Ring gear is of alloy nickel bronze and is mounted at the center of an alloy steel crankshaft. Worm is of chrome nickel steel, hardened and ground. These driving parts operate in oil bath in the enclosed crankcase and are mounted on Timken tapered roller bearings which are sealed off from the crankcase.

Pistons have cast iron bodies and are regularly furnished with cast iron snap piston rings, but any type piston rings may be specified. The pumps are made with interchangeable liner type fluid end, inserted brass tube liner, or can be furnished with special alloy steel or bronze liners for specific services. Valves may be specified of Durabla Stainless Steel or of Monel Metal with bronze seats.

A valuable feature of design is the large fluid passages and valve openings, which permit proper filling at highest piston speeds without undue shock or loss of power due to excessive friction.



Gaso mounted pumping unit

This Week with the Industry's EQUIPMENT SUPPLIERS

S. M. Jones Company Modernizing Toledo Plant

The S. M. Jones Company, Toledo, Ohio, has announced the awarding of contracts totaling $150,000 for an extensive plant modernization program. Plans consist largely of new modern equipment, with some additional building.

The program was made necessary not on account of greatly increased business but rather to replace obsolete equipment and to modernize the plant, according to Percy C. Jones, president of the firm.

Iron & Steel Products Buys Manufacturing Plant

Iron & Steel Products, Inc., Chicago, dealers in railway supplies and equipment, including tank cars, has purchased the North Works of The Ryan Car Company located at Hegewisch, Ill., a Chicago suburb. The purchase consists of all the buildings and about 27 acres of land, which will be used by the buyer for its line of business.

New Lux Distributor Appointed at Dalllas

Walter Kidde & Company, Inc., Bloomfield, N. J., has appointed Emmet F. Blakemore, Jr., of 3623 Hall Street, Dallas, Texas, as its distributor in the Dallas territory. Blakemore will be in charge of all fire extinguishing equipment sales including Lux and the new Kidde-Foam lines.

Pomona Pump Establishes Performance Laboratory

Pomona Pump Company, Pomona, California, has developed an unusual pump-test laboratory, where predetermined pump performance is directly attained. Many devices have been designed exclusively for use in making accurate readings of performance as to speed, brake horsepower input, pressure head and water flow.

To make these observations parallel those of actual operation in the field as closely as possible, the research laboratory is provided with a concrete well 135 feet deep and 4¼ feet in diameter. Here Pomona pumps are tested at variable speeds from 500 to 3500 revolutions per minute, with records obtained on integrating and automatic reading tachometers. Brake horsepower input is measured by a specially built vertical dynamometer, and driving torque is indicated by a stationary precision weighing apparatus that is accurate to 0.01 horsepower. Power input to the motor is measured by a calibrated watt hour meter, and the overall efficiency and power factor of the motor are readily determined in advance of shipment.

Pressure head measurements are made by a specially constructed mercury col-

Catalogs... Bulletins

Forged Steel Fittings

The Watson-Stillman Company, Roselle, N. J., has issued Bulletin A-3, which describes its line of forged steel fittings. These fittings are accurately machined from solid drop forgings. The drop forgings are made from solid open hearth steel billets conforming to the company's specified chemical and physical analysis. All Watson-Stillman forged fittings are rigidly inspected and tested to double their rated pressure. The fittings shown in the bulletin are recommended for oil, water, gas, steam and chemical services at high pressures and high temperatures.

Swivel

The National Supply Company, Toledo, Ohio, has available a leaflet that describes its Ideal swivel, Type "E", a model that incorporates several new features.

Gas Engines

The National Supply Company, Toledo, Ohio, recently issued bulletin No. 112, describing the Superior vertical, two-cycle, Types "G" and "M" convertible gas engines.

Diesel Drilling Engine

The National Supply Company, Toledo, Ohio, will be glad to mail to interested persons a copy of bulletin No. 108, describing its Superior Type "JDM" Diesel drilling engine for mechanically driven rotary rigs.

Feedwater Heater and Pump

Oil Well Supply Company, Dallas, Texas, has available bulletin No. 110-A(346), describing its combination feedwater heater and pump, which consists of an open type feedwater heater, a cold water supply pump and a hot water or boiler feed pump, all in a single unit.

Tractors

Caterpillar Tractor Company, Peoria, Illinois, recently issued a bulletin describing its RD4 Diesel and "Thirty" model tractors, the latter with an engine especially designed to operate on tractor fuels or gasoline.

Fire Extinguishment

Garrison Engineering Corporation, Great Barrington, Mass., has ready for distribution an interesting brochure that decribes the dry method of fire extinguishment. The brochure also tells what fire is and explains the conditions that are needed to start a fire.

Nickel Alloy Steels

The International Nickel Company, New York City, has compiled a listing that shows the number of warehouse distributors regularly carrying nickel alloy steels in stock. The listing includes a representative list of warehouses in all parts of the United States. It will be mailed to interested parties upon request.

Baker Oil Tools, Inc. new plant at Houston

umn, reading direct both above and below a permanently fixed bench mark or datum line. Heads can be measured up to 320 feet with an accuracy of 0.01 foot. Water flow calculations are taken from calibrated rectangular weirs of large capacity and very low approach velocity, and checked through volumetrically calibrated venturi meters. Quantity flows up to 25,000 gallons per minute are measured on a finely divided vertical scale with a vernier gauge reading to 0.0005 feet. Many other important facts, such as column friction head losses and shaft bearing losses with different types of column construction are regularly obtained.

500 Attend Baker Oil Tools House Warming

Baker Oil Tools, Inc., had more than 500 oil men as its guests on Saturday, June 20. The occasion was in celebration of the company's official opening of its new Houston plant at 6023 Navigation Boulevard. A seven-piece orchestra furnished entertainment, and barbecue was served.

A number of Baker Oil Tools, Inc., executives were present as hosts. Included in the group were T. Sutter, vice president and general manager; S. E. Rees, credit manager; C. E. Whitney, sales manager; and C. E. Burt, chief engineer, all of Huntington Park, California; W. A. "Red" Davis, district manager, Houston; Walter Routt, Dallas and Houston sales representative; H. Bishop, Houston salesman; John Grubb, North Louisiana representative; Gordon Key, South Louisiana sales; and Ray Kail, Southwest Texas sales.

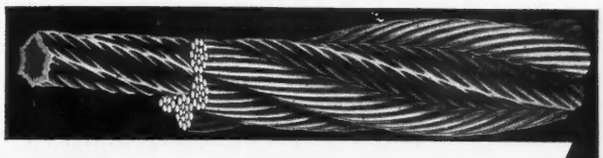
The new Baker plant in Houston is 65 feet by 200 feet at present, but plans are to enlarge it within the near future. The company owns approximately 5½ acres of land surrounding the location. Fabrication of considerable Baker Oil Tools, Inc., equipment is now taking place at the new plant.

Southwest Equipment Appointed Buffalo Engine Distributors

Southwest Equipment Company of Dallas and Kilgore has recently been appointed distributors for Texas for Buffalo Gasoline Motor Company's line of heavy-duty engines burning natural gas, butane and gasoline fuels. Built in 4, 6 and 8 cylinder sizes, their capacities range from 55 horsepower at 600 revoltuions per minute up to 550 horsepower.

The engines are designed for normal operating speeds from 300 revolutions per minute to 1200 revolutions and are of an extra heavy duty design suitable for oil well drilling, gathering and pipe line work, oil well pumping and similar heavy jobs.

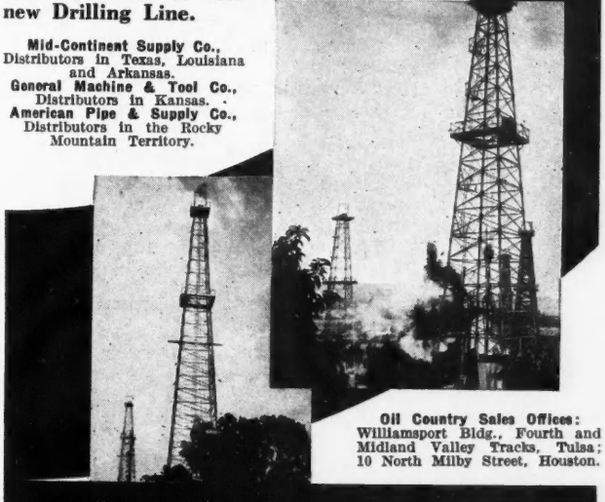
Parts stock and service will be established at Dallas for the Texas area and parts stock and service for other Mid-Continent territories are maintained by Max E. Landry, Mid-West representative of the Buffalo Company at Oklahoma City and Tulsa.



Again Williamsport steps ahead with a perfected Rotary Drilling Line in which their exclusive Uni-Zact Core, as illustrated, plays an important part.

Drillers are reporting remarkable results from the use of this new Drilling Line.

Mid-Continent Supply Co., Distributors in Texas, Louisiana and Arkansas.
General Machine & Tool Co., Distributors in Kansas.
American Pipe & Supply Co., Distributors in the Rocky Mountain Territory.

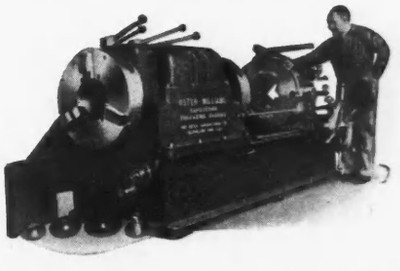


Oil Country Sales Offices: Williamsport Bldg., Fourth and Midland Valley Tracks, Tulsa; 10 North Milby Street, Houston.

WILLIAMSPORT WIRE ROPE CO.

WILLIAMSPORT, PA. 122 SO. MICHIGAN AVE., CHICAGO, ILL.
Other Offices in All Principal Cities

***for* EXTRA HEAVY-DUTY PIPE-THREADING AND BUCKING-UP**



New . . . husky . . . powerful. Built to stand the gaff of severe strain. Capacity . . . 2½" to 8⅝" on a single die-head, with only one set of dies for each pitch. Write for details.

THE OSTER MFG. COMPANY

OSTER THREADING EQUIPMENT WILLIAMS

Sales Office:
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Cleveland, Ohio and Erie, Penna.

Squeaks from the Bull Wheel

Pun—My Word!

Announcement was made in Cleveland, Ohio, last Thursday night that Alf Landon of Topeka, Kansas, will head the company which will attempt a semi-wildcat venture in the southeast quarter and northeast quarter and southwest quarter and northwest quarter of the United States providing enough acreage can be secured by November. The location has already been selected in the center of Washington, D. C. The new venture will be undertaken by Alf Landon, Bill Knox, John Hamilton, G. O. P., et al.

For over three long years Jim Farley, F. D. Roosevelt and Associates have been working on a rank wildcat which is a direct offset to the left of Old Constitution No. 1, a good producer for over 150 years. This venture is known as Farley's Folly No. 79.

The Farley-Roosevelt company was named the "New Deal" to make it popular with the stockholders. The company has had considerable difficulty due to cave-ins, lost tools and poor consultation service from college professors. To date 22½ billion dollars has been spent on the venture with very little progress made. Several of the directors recently resigned from the New Deal company. Among these was Al Smith, who thinks the venture should have been abandoned as the original contract has been almost completely ignored and millions of small stockholders will be forced to pay the New Deal company's debts which have been piled up during the past three years.

Reliable information has leaked out that Farley has overloaded the lazy bench with too many New Deal employes thereby increasing the payroll so great that the stockholders will call a halt to his expensive methods at their election in November.

The new company now entering the field is headed by Landon, who has been a very successful producer for Kansas. Should he and his company secure enough backing to get the block they need, operations will start shortly after the first of the year. The record of Landon in Kansas will insure the stockholders of the United States production from the G. O. P. venture at a minimum of expense. This is based upon Landon's record in the Kansas field during the past three years.

A number of the backers in the New Deal venture are now taking stock in the proposed Landon location. The opinion today is that the majority of the stockholders will vote at the election in November to shut down the expensive operations on Farley's Folly No. 79, and instruct the Landon company to go ahead with their venture according to the common sense contract drawn up at Cleveland last week.

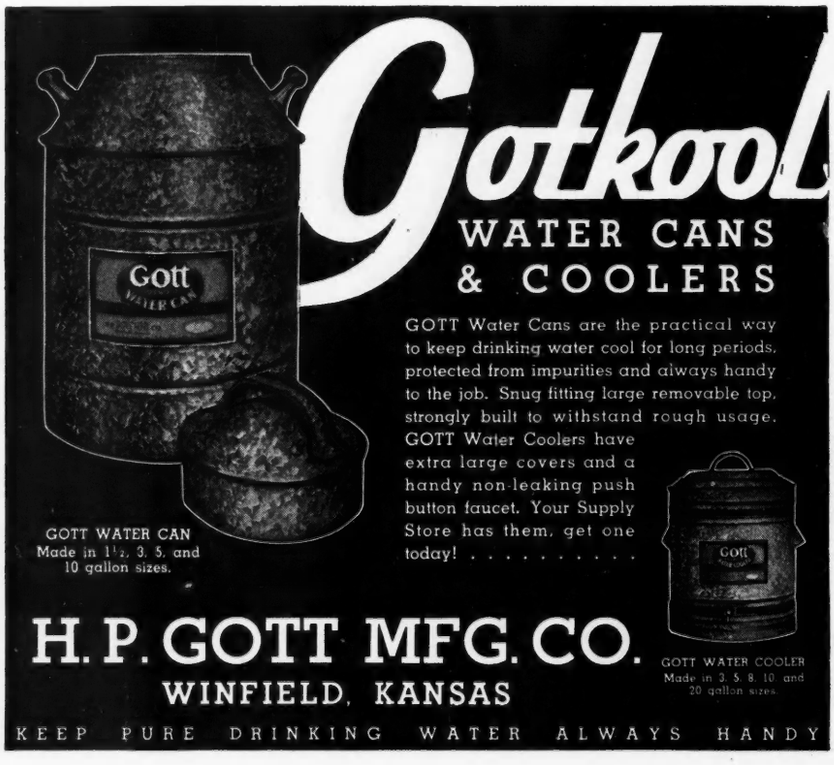
The entire world is watching this undertaking with great interest.

—*Augusta (Kansas) Gazette.*

"I tried petting with our conceited boss to get a salary increase, but it didn't work."

"No?"

"No. After we'd started petting he thought I should take a reduction."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GOTT WATER CAN
Made in 1½, 3, 5, and 10 gallon sizes.
GOTT Water Cans are the practical way to keep drinking water cool for long periods, protected from impurities and always handy to the job. Snug fitting large removable top, strongly built to withstand rough usage. GOTT Water Coolers have extra large covers and a handy non-leaking push button faucet. Your Supply Store has them, get one today! . . . . . .
Gott
GOTT WATER COOLER
Made in 3, 5, 8, 10 and 20 gallon sizes.
H. P. GOTT MFG. CO.
WINFIELD, KANSAS
KEEP PURE DRINKING WATER ALWAYS HANDY

Johnny's Luck

Little Johnny had been to school for the first time.

"Well, darling, and what did you learn?" asked his mother on Johnny's return.

"Nothing," sighed Johnny hopelessly. "I've got to go back tomorrow."

There Are Others

Bill: "I was down-town yesterday, and I fell over a hundred feet."

Mike: "Didn't you even get hurt?"

Bill: "No, I was going out of a crowded street car."

There was a young lady from Kent,
Whose grammar was terribly bent;
She said to her flame,
"I'm so glad you have came,
But I'll miss you so much when you've went."

A Moral But No Morale

He: "If a man steals, no matter what, he will live to regret it."

She: "How about those kisses you used to steal before we were married?"

He: "You heard what I said."

Edison's Machine

Willie: "Did Edison make the first talking machine, pa?"

Pa: "No, son, God made the first one, but Edison made the first one that could be shut off."

Too Fast a Pace

The hermit came from the mountains to the city to see what changes were taking place in the world of men which he had not seen for many years.

As he entered the city, he was struck by a sign that read—"Try Ethyl—20 cents." But he started on, when at the next corner he saw another sign, "Two gals, 35 cents." Then he turned and started back for the mountains. The world was going along too fast for him.

Who Was Foolish?

"Then I offered her riches, jewels, yachts, country houses—"

"But she was young and foolish?"

"Yes, she believed me!"

"The new manager is a man of few words."

"Who told you that?"

"He did—for three hours."

Already Burned

Neighborly Wife: Look, dear, how picturesque; the Browns are bringing in a Yule log.

Husband: Yule log my eye; that's Brown.

An Undue Disturbance

A judge, while trying a case was disturbed by a young man who kept moving about in the rear of the court, lifting chairs and peering under the seats.

"Young man," exclaimed the learned judge at last, "you are making a good deal of unnecessary noise. What are you doing?"

"Your honor," replied the offender, "I have lost my overcoat and am trying to find it."

"Well," came the reply, "people often lose suits here without making all that fuss."—Protection.

ARMCO
SPIRAL WELDED PIPE
for Gas-Gathering Lines

Trim • Strong • Easy-Handling
Choice of Wall Thicknesses

THE AMERICAN ROLLING MILL COMPANY

Pipe Sales Division
Middletown, Ohio

Tulsa, Okla., Office
538 Mayo Building

The **"PIGMY"** *HOIST*
With a GIANTS POWER

For use in the OIL INDUSTRY — the

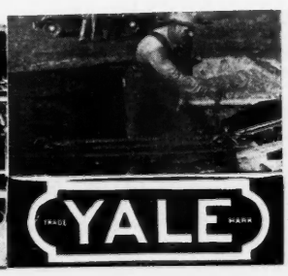
PUL-LIFT

The PUL-LIFT is small and light enough to easily be carried about by one man, yet its power and durability are amazing—and it is a real glutton for work. It both pulls and lifts — operates either in horizontal or vertical position.

This remarkable device is appropriately called "the tool of 1000 uses." It is made in 4 sizes — ¾, 1½, 3 and 6 tons capacities.

Sold by Yale distributors in every industrial center —or write direct to us for details.

IT PULLS—IT LIFTS
PUL-LIFT



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ONCE you have tried The Lenox, you will agree that it is unwise to pay more than Lenox rates for first class hotel accommodations. Everything provided for your comfort, convenience and relaxation—and marvelous food at low fixed prices.

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Single	$1.50 to $3.00
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CLARENCE A. MINER, *President*

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Oil Center Tool Co.	—
Oil City Brass Works	—
Oil Well Supply Co.	24-25
Oster Manufacturing Co.	95
Otis Pressure Control	—
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The Parkersburg Rig & Reel Co.	6
Patterson-Ballagh Corp.	—
Pelican Well Tool & Supply Co.	79
Petroleum Electric Power Club	4
Petroleum Rectifying Co.	—
Petty Geophysical Engineering Co.	—
The Pierce Governor Co.	82
Pittsburgh Equitable Meter Co.	—
Pittsburgh Steel Co.	—
Portable Rig Co.	—
Producers Supply & Tool Co.	—
R	
Rector Well Equipment Co.	—
Reed Roller Bit Co.	—
Joseph Reid Gas Engine Co.	—
The Republic Rubber Co.	—
Republic Steel Corp.	27
Norman H. Ricker	92
The Ridge Tool Co.	—
Dewey T. Ross, Inc.	—
Walter Ruska & Co.	—
S	
Scandinavia Belting Co.	—
J. A. Schley	—
Schlumberger Well Surveying Corp.	—
Security Engineering Co.	—
Seismic Explorations, Inc.	—
The Shaffer Specialty Co.	—
Shaffer Tool Works	—
Shell	—
Sinclair Refining Co.	—
SKF Industries, Inc.	—
A. O. Smith Corp.	—
E. M. Smith Co.	68
Nowery J. Smith Supply Co.	—
South Chester Tube Co.	45
South Texas Geophyiscal Corp.	92
Southern Engine & Pump Co.	—
Southern Pacific Lines	—
Spang & Co.	—
Spang, Chalfant & Co.	33
Sperry-Sun Well Surveying Co.	—
Stanley Tools	—
Star Drilling Machine Co.	—
T	
Templeton Kenly & Co.	—
Texas Electric Steel Castings Co.	—
Texas Iron Works	43
Thermoid Rubber Co.	35
Thornhill-Craver Co.	81
The Timken Roller Bearing Co.	—
Tips Engine Works	—
Titusville Iron Works Co.	—
Tnemec Co.	—
Edgar Tobin Aerial Surveys	—
Tretolite Co.	—
Trimont Manufacturing Co.	—
Trinity Portland Cement Company	—
Twin Disc Clutch Co.	—
U	
Union Carbide & Carbon Corp.	—
Union Wire Rope Co.	—
United States Rubber Products, Inc.	40
United States Steel Corp.	—
United Supply & Manufacturing Co.	—
V	
Volcano Burner Co.	—
W	
Waukesha Motor Co.	—
Westinghouse Electric & Mfg. Co.	—
The Wheland Co.	37
Wickwire-Spencer Steel Co.	—
J. H. Williams & Co.	—
W-K-M Co.	—
Williamsport Wire Rope Co.	95
Wilson-Snyder Manufacturing Co.	—
Wilson Manufacturing Co.	18
Wilson Supply Co.	—
Worthington Pump & Machinery Corp.	—
Y	
Yale & Towne Manufacturing Co.	97
Youngstown Sheet & Tube Co.	—

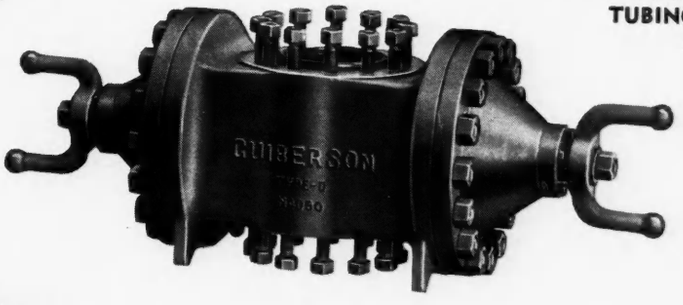
GUIBERSON
Oil Savers

TYPE C-2 HIGH-PRESSURE TUBING AND DRILL PIPE OIL SAVER

Safe-Efficient!

GUIBERSON now manufactures the most complete line of oil savers offered to the Oil Industry. The varied types include GUIBERSON High-Pressure and Standard Tubing and Drill Pipe Oil Savers, the GUIBERSON Tubing Stripper, the GUIBERSON Wire Line Oil Saver and the GUIBERSON Sucker Rod Stripper.

GUIBERSON High-Pressure Oil Savers, especially Types "C2" and "D", are constructed for working tubing under high pressures and for use in conjunction with drilling of oil formation under pressure. All GUIBERSON oil savers have rubbers which are of oil-resisting compound, allowing passage of both tubing and drill collars with no leakage, yet having long life, and are of patented construction.

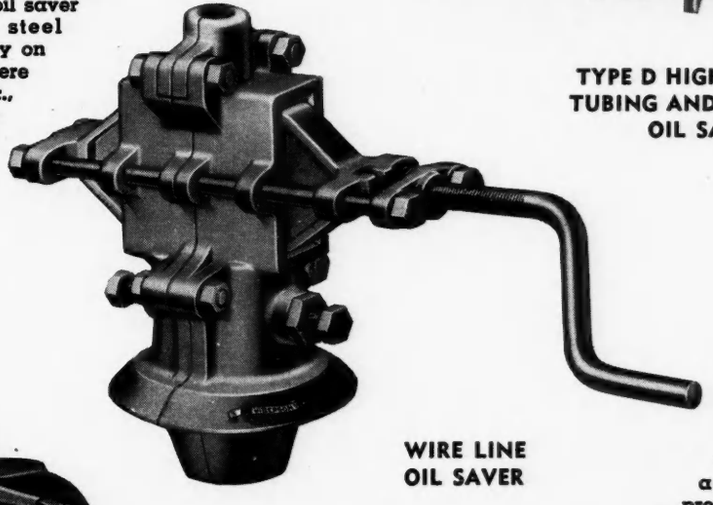


TYPE D HIGH-PRESSURE TUBING AND DRILL PIPE OIL SAVER

The GUIBERSON Type "B" Tubing Oil Saver is primarily a tubing oil saver constructed with split type steel housing, facilitating assembly on well. It is recommended where tubing catchers, packers, etc., are run where pressures do not warrant use of Type "C2" or Type "D". Shop-tested for 800 lbs. hydrostatic pressure.

The GUIBERSON "C2" Tubing and Drill Pipe Oil Saver, here shown, is primarily used for drilling in under pressure. It is of one-piece, all-steel construction. Tested for 1200 lbs. hydrostatic pressure.

The GUIBERSON Type "D" Tubing and Drill Pipe Oil Saver, here shown, has recently been added to the line and is used both for working tubing and drilling in under pressure. It is of one-piece, all-steel housing. Tested for 3000 lbs. hydrostatic pressure.



WIRE LINE OIL SAVER

The GUIBERSON Wire Line Oil Saver, here shown, has introduced an improved patented method of operating the main packing rubbers. One crank adjusts both rubbers simultaneously, giving equal pressure automatically. Tested for 500 lbs. hydrostatic pressure.

SUCKER ROD STRIPPER

The GUIBERSON Sucker Rod Stripper, here shown, is a recent tool designed to strip oil and paraffin from rods and couplings in coming out and prevents oil leakage when rods are being pulled or run. Tested for 500 lbs. hydrostatic pressure.

All GUIBERSON oil savers can be supplied with regular or special adapters. For full details on oil savers or other GUIBERSON specialties, see your supply house, ask us for special bulletins, or consult the Composite Catalog, starting page 547.

Fully protected by U S Patents issued and pending.

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GUIBERSON

BETTER BE SAFE THAN SORRY

HUGHES TOOL COMPANY - HOUSTON, TEXAS, U. S. A.